REPORT RESUMES

ED 003 481 24
PSYCHOLOGICAL CORRELATES IN DIALECTOLALIA.
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REPORT NUMBER CRP-2610 PUB DATE 65
EDRS PRICE MF-$0.27 HC-$5.28 132P.

DESCRIPTORS- SPEECH HANDICAPS, *PSYCHOLOGICAL TESTING, *PRONUNCIATION INSTRUCTION, DISTRICT OF COLUMBIA

A TOTAL OF 1,209 HOWARD UNIVERSITY FRESHMEN REPRESENTING 42 STATES WERE ADMINISTERED (1) A STANDARD AUDIOMETRIC EXAMINATION, (2) A SPEECH BATTERY, (3) A BATTERY OF PSYCHOLOGICAL TESTS, (4) A SPEECH AND LANGUAGE ATTITUDE INVENTORY IN THE FORM OF A 25-ITEM, LIKERT-TYPE SCALE, AND (5) A SOCIOECONOMIC ASSESSMENT INVENTORY CONTAINING 42 OPEN-ENDED AND MULTIPLE-CHOICE QUESTIONS. IN ADDITION, 140 STUDENTS WHO WERE RANDOMLY SELECTED FROM THE LARGER GROUP PARTICIPATED IN AN EXPERIMENT ON CORRECTION TECHNIQUES FOR SPEECH DEFECTS. IT WAS CONCLUDED THAT PROFICIENT SPEAKERS SEEM TO POSSESS A PERSONALITY STRUCTURE SIMILAR TO THAT OF THE WHITE MIDDLE CLASS GROUP ON WHICH THE TESTS WERE STANDARDIZED. THE PERSONALITY PROFILE OF THE NON-PROFICIENT SPEAKERS EXHIBITED MANY OF THOSE QUALITIES OFTEN ASSOCIATED WITH THE NEGRO STEREOTYPE. (JK)

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PSYCHOLOGICAL CORRELATES
IN
DIALECTOLALIA

COOPERATIVE RESEARCH PROJECT

NO. 2610

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1965

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The research reported herein was supported by the Cooperative Research Program of the Office of Education, United States Department of Health, Education, and Welfare.

ED003481

ACKNOWLEDGMENTS

The contributions of the following persons to the successful completion of the research serving as basis for this report are gratefully acknowledged: Dr. Lettie J. Austin, Department of English, Howard University; Dr. James A. Bayton, Department of Psychology, Howard University; Dr. John W. Black, Department of Speech, Ohio State University; Dr. Eugene Brutten, Department of Speech, Wayne State University; Mr. Peter Campanelli, Audiology and Speech Pathology, D. C. General Hospital; Mr. William Daly, Department of Speech, Catholic University; Dr. G. Franklin Edwards, Department of Sociology, Howard University; Dr. Ruth Golden, Board of Education, Detroit, Michigan; Mrs. Pearl Harrison, Speech Clinic, Howard University; Dr. William Klein, Center for Youth and Community Studies, Howard University; Dr. Ivan E. Taylor, Department of English, Howard University; and Mrs. Beverly Townes, Speech Clinic, Howard University.

My thanks also to Mrs. Queen E. Fountain and Mr. William Cammon, who did so much to facilitate preparation of the final report.

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PSYCHOLOGICAL CORRELATES IN DIALECTOLALIA

The Problem

Statement of the Problem

The broad concern of this study was with developing more effective procedures for coping with the debilitating speech and language patterns which prevail upon a relatively massive scale at every educational level. Making up the bulk of those affected are Negroes and other minority group members with educationally and culturally deficient backgrounds. Varyingly called poor speech, functional articulatory disorders, substandard speech, and Negro dialect, dialectolalia is probably the more accurate and more appropriate term. As a speech condition that brings attention to itself, interferes with communication, and often causes its possessors to be maladjusted, dialectolalia fits the definition given by Van Riper (1961) for defective speech, i.e., abnormal speech that requires the systematically applied attention of specially trained personnel if proper diagnosis and remediation are to be achieved. Yet, it has been the general ineffectiveness of widespread efforts by speech teachers and speech pathologists that has stressed the need for added experimentation and research.

The high resistivity of dialectolalia to standard remedial speech procedures is due, at least in part, (1) to the nascent state of scientific principles in the field of speech communication, (2) to the need for broader understandings of relationships between functional speech disorders and suspected undesirable psychological correlates, and (3) to the inadequacy of current instruments and instructional procedures. This study was addressed to these concerns.

Background of the Problem

Operationally, dialectolalia involves such specific oral aberrations as phonemic and sub-phonemic replacements, segmental phonemes, phonetic distortions, defective syntax, misarticulations, mispronunciations, limited or poor vocabulary, and faulty phonology. These variables exist most commonly in unsystematic, multifarious combinations. In addition, there is abundant clinical and experimental evidence to support the hypothesis that low emotional tolerance levels, anxiety, and atypical personality profiles are monolithic concomitants of the faulty oral schema. It is complexities introduced by the presence of these psychological elements and the lack of a physical or physiological basis for the deviant speech and language patterns that distinguishes dialectolalia from various other articulatory or vocal disorders.

Underlying the research was the assumption that a satisfactory level of speech proficiency -- using as criteria standard American dialects and grammatical constructions considered acceptable for any one of the several geographic regions of the United States -- is vitally important to the total learning process (Shaffer & Shoben, 1956) and especially to the efficient refinement of such basic verbal skills as reading and writing (Green, 1962; Walcott, 1959). It was felt, moreover, that evolvement of a more effective process for identifying and assessing the pathology of non-organic speech deficiencies and differences is the first stage in a program to improve the outcomes of efforts at treatment and remediation.

Thus, the present research investigated some of the emotional and personality variables on which students with low and high speech proficiency scores differed significantly. In addition, the attempt was made to describe more completely the socioeconomic and oral behavioral characteristics of dialectolalics. Hopefully, the research reported here has resolved some uncertainties, crystalized the nature of the problem and provided the bases necessary to encourage further research.

Significance of the Study

Perhaps the most serious outcomes of a dialectolalic condition are of an economic nature. The condition contributes to employment barriers which preclude the utilization of the skills of many persons who are otherwise well qualified. Vocations requiring satisfactory speech are teaching, law, those involving auditory and visual mass communication media, and countless others in which poor speech might represent a correspondingly poor reflection of the employer or the individual employee.

This research has theoretical as well as practical significance. In probing such matters as (1) attitudes toward speech standards, instruction, and need for personal improvement, (2) psychological correlates of dialectolalia, and (3) possibilities for refining procedures for identifying and remediating dialectolalia, the study confronts a situation contributing to an impractical waste of human resources. The theoretical significance of the study rests generally, therefore, on its potential for adding to the existing body of knowledge concerned with the complex phenomenon of human communication.

Specifically, it has been shown that articulatory and other speech errors that become habituated from any cause serve to detract substantially from other well developed academic related capabilities (Golden, 1960). The positive relationships found by earlier studies between writing and speaking

(Powers, 1953; Green, 1962; Walcott, 1959) infer that poor oral execution of the language symbols may be reflected in similarly deficient writing skills. The same kind of relationship has been noted between speech and reading (Powers, 1953). The ultimate net result of such conditions is often an interrelated series of serious handicaps which function to complicate the teaching task and render learning unnecessarily difficult.

Another area of significance for this study is well supported by Anisfeld (1962), who delineates with clarity the tendency of majority groups to be influenced negatively by stereotypes which are reinforced by speech that is atypical in a given community.

Objectives of the Study

As indicated in the foregoing, the specific purpose of the study was to assess the psychological correlates of speech and language behavioral patterns which are deviant in terms of the mainstream English language usage in the United States. In addition, the study attempted to determine the most efficient methods for diagnosing and remediating these problems. Finally, the investigation sought to evolve clearer ethiological understandings leading to development of a test battery which might simplify the differential diagnosis procedure and improve the probability of successful therapy. More specifically, the study had the following major objectives:

1. To identify some psychological variables (emotional, attitudinal, and personality) on which good and poor speakers differ;
2. To develop and evaluate the effectiveness of a battery of procedures in identifying the varied dimensions of non-organically based speech and language deficiencies;

3. To examine the over-all implications of the battery identification approach for more effective instructional programs.

Related Research

Incidence of Dialectolalia

It has been noted that only one-fifth of all speech defects have organic causes. In summarizing reports from various sources on the incidence of speech disorders in general, Milisen (1954) found that 15 per cent of the public school children from kindergarten to the fourth grade and 5 per cent of those in grade four and above had speech problems severe enough to require remediation. These statistics, however, may be considered conservative and not inclusive of the tremendous number of dialectolalics for whom the problem continues to exist at the time of admission to college. Neither does it consider fully the language factor as a contributor.

Further evidence of the heavy incidence of functional articulatory or dialectolalic types of disorders may be gleaned from the report of the Mid-Century White House Conference of 1950 which stated that more than 5,310,000 persons in the United States were afflicted by this condition to an extent warranting special attention by trained personnel. Again the figures may be considered as conservative.

A recent study by Ruth Golden indicates that functional speech problems are disproportionately represented in predominately low socioeconomic school populations (1960). In spite of the great need, however, this study has shown how programs of remediation have suffered from inadequate insights and a general failure to recognize the problem as a complex, pathological condition requiring far more knowledge of its causes, effects, and correlates than presently seems to be the case. Even more disturbing has been the dearth of attention given to the rapidly expanding population of college students representative of minority groups whose collegiate efforts are often handicapped by deviational speech behavior of little recognized significance. As an example, teachers of speech at Howard University have estimated that in excess of 60 per cent of all students admitted to Howard are deficient in speech and language skills. This is consistent with the actual percentage of freshman students at Howard who require remediation in English or reading.

Causes and Correlates

Although the specific etiology of functional articulatory problems is in dispute, the causes are generally agreed to be physiological, psychological, or environmental (Powers, 1953).

Proponents of physiological theory stress such factors as retardation in the development of neurological and related mechanisms considered as fundamental to the learning of good speech.

Those favoring psychological theory cite such factors as a lack of the necessary stimulation, emotional blocks, an unfulfilled desire for independence, and a compulsion to gain attention.

It would appear that the body of physiological theory tends to ignore much of the evidence made available during recent years. On the other hand, existing psychological theory seems to require broad amplification to include the environmental, linguistic and other variables which have been shown to contribute so significantly to personality, behavior and, it may be assumed, to intellectual development. Significantly, the inexorable power of imitation should not be minimized in considering this problem. As stated by Batten (1958): "More and more specialists are emphasizing the effect which environment and parent-child relationships have on the development of speech and language in the child." Since, therefore, many essentials of the psychological theory may be considered as environmentally induced, the factor of environment and its psychological exponents as a single body of theory seems to outweigh any other as the most satisfactory explanation of cause. At the same time, however, there is no intention to deny that physiological considerations may be present simultaneously or can, of themselves, result in an articulatory disorder; much remains unknown about the nervous system of the human organism.

Powers (1953), in citing the grave inconsistencies in much of the research findings on functional articulatory problems, has called attention to the need for observation of the effects of patterned individual pathological correlates as a more reliable approach to identification and remediation. Questions raised as a result of the review of the literature by Powers include the following: (1) Are there biological or physiological factors that can account for phonatory differences? (2) Are poor attention skills an inevitable outgrowth of other predisposing conditions of dialectolalia? (3) To what extent do auditory, intellectual, and personality variables constitute predisposing elements for this condition? (4) What are the most prevalent constituents of a dialectolalia? (5) How can understandings of etiology be combined with clinical processes to improve classroom instruction? These questions fall directly within the periphery of the present research.

One critical psychological factor often overlooked seems to be the person's perception or lack of perception of his problem and its effects, i.e., to what extent is the student aware of his speech deficiencies and the varying implications. In this connection, Bidwell found that speech differences affected conformity to norms, identification, and aspiration levels. Dexter (1961), found an inverse relationship with maturation, and Bryngelson (1928), in a separate study, detected effects on character and self-conception. As indicated by Schrieber (1960), "So inextricably linked is a child's psychological development with his developing speech and language that it is, at times, quite impossible to separate the two courses of development." This may account, of course, for many of the difficulties of remediation.

Socioeconomic and Cultural Factors

Some research has been conducted on the effects of cultural deprivation and racial differences on personality and intellectual development. Brazziel (1964) found the personality structure of Southern Negro college students to be quite different from that of their white counterparts. He concluded that caste sanctions severely affect the need patterns of the Negro youth; the attributes most affected were those which serve to equip the individual for relating in an ascendance or submission pattern to others.

Among the studies concerned with speech development or incidence of speech disorders among children of varying socioeconomic groups, Davis (1938) and Beckey (1942) found in separate investigations that significantly more children with retarded speech belonged to low income parents with limited educational backgrounds. A similar conclusion was derived by

McClure (1952) who found that "factory working parents" was one of the items in common for children with articulatory and reading defects. McCarthy (1930) and Templin (1957) in their exhaustive monographs found marked linguistic differences as a function of socioeconomic level.

Explanations of the differences in favor of the higher socioeconomic groups include a more stimulating speech environment, and more and better articulatory training of their children. Equally important, as noted by the research, are the other persons within the environment with whom the adolescent strongly identifies emotionally. Often at the unconscious level, the young person strives to become like those he admires or respects. Thus, poor speech models contribute to the acquisition of speech deficiencies on the part of the young admirers. The poor patterns become reinforced with time and by late adolescence have become firmly entrenched. This is one reason why a technique successful with children can be so ineffective with a youth of 18.

A number of studies have addressed themselves to the problem of speech differences as a function of race. With reference to investigations of phonological characteristics and racial identity, the Hollien-Malcik study (1962) seems to suggest real differences between Negro and white subjects. Hibler (1960) states more directly that trained observers can recognize race differences. In an investigation completed by Stroud (1956) it was noted that judges were able to discriminate between recorded voices of Negro and white students in 93 per cent of the cases. Detected also through this latter study was an inverse relationship between socioeconomic status and number of errors. And uniquely, but confirmed later by Golden (1960), the study showed that southern Negroes did not account for differences in the total group.

With the exception of Stroud (1956) and the "Golden Report" (1960), which delineated the speech problems of Negro students in the public schools of Detroit, research on the level undertaken in the present investigation has been proliferous but more basic, and concentrated on isolated variables. This tendency to ignore significant interrelationships and predisposing factors has led to conflicting and often inconclusive results. The present research was an attempt to delineate some of the interrelationships whose complexity was assured by the nature of the problem investigated.

Summary

Minority group members tend to be products of an environment saturated with seemingly endless frustrations. Moreover, a prevailing general atmosphere of deprivation permeates all developmental activity during adolescence. Wedged in an environment marked by low economic status, segregated schools, discriminatory employment practices and inferior housing, the Negro youth in particular is subjected to a complex series of aggravations possessing the capacity for retarding seriously his social, intellectual and emotional development. Other minority groups inherit a similar range of problems as noted by Bidwell, who stressed also the difficulties of comprehension.

Since speech is a learned activity, it may be learned poorly. As the product of an environment marked by the foregoing vagaries, the speech of many minority group members reflects the sub-standard patterns of the primary referents. Even though this implies correctly a disability of function, the psychological correlates present or potentially present must be evaluated carefully before remediation or therapy is initiated. It would appear also that these psychological considerations must be detected and treated if maximal results are to be realized. The remedial procedure would seem to depend, therefore, on a careful investigation of correlates, development of adequate diagnostic precedures and objective measures, and an awareness of successful clinical methods.

Methods and Procedures

Hypotheses

The first hypothesis tested in connection with the objectives of the study was that students evaluated as poor speakers differ from students evaluated as good speakers in emotional tolerance level, anxiety level, indices of social adjustment (personality), and attitudes toward speech standards and remedial programs.

The second hypothesis tested was that a diagnostic procedure consisting of an interview and a battery of speech and psychological instruments is more effective in identifying the major components in dialectolalia, including undesirable psychological variables, than are the traditional procedures.

The third hypothesis tested was that a program of remedial instruction for improving speech and language, providing for attention to the full constellation of factors making up the debilitating condition, rather than one that concentrates solely on articulatory inadequacies, is more effective than a purely conventional program of instruction.

The study was conducted in two phases. In the initial phase, which tested Hypotheses 1 and 2, the battery of instruments was administered to the total population. The subjects were then classified into speech proficiency sub-groups on the basis of analyses by judges. The results of the test battery were further analyzed with respect to the high proficiency and low proficiency speaker groups. An attempt was made to identify psychological, socio-economic, and speech proficiency patterns which served to differentiate these two groups.

The third hypothesis was tested through post-instructional comparison on a series of variables of randomly selected high proficiency and low proficiency groups of speakers. Compared also under varying conditions were control groups and experimental groups selected from among the low proficiency speakers.

Subjects

The subjects were 1,209 Howard University freshmen enrolled for the first semester of the 1964-65 academic year, of whom 566 were males and 643 were females. The subjects represented 42 states.

Instruments

The instruments used in this study included both standardized and newly constructed tests. A discussion of each instrument follows:

Audiometric Examination

A Beltone audiometer was adapted to test from one to twelve subjects per session. Pure tone tests of acuity at 500, 1,000, 2,000, and 4,000 cps were administered to all subjects. Five subjects were eliminated because of faculty hearing. Discrimination tests using Multiple-Choice Intelligibility Test (M. C.I.T.) word lists were also administered.

Speech Battery

In order to assess proficiency levels, a series of intelligibility and

These pictures show various stages of the process for classifying speakers. Above the experimenters are recording speech samples. Illustrated below are a group audiometric testing session (lower right) and an evaluation session in which judges are listening and assigning ratings and scores (lower left).

general proficiency tests were administered to each subject. These tests served as the basis for the designation of speakers as highly proficient, moderately proficient, and non-proficient.

The first test in the speech battery consisted of the reading of a passage, "My Grandfather," which contained all the phonetic elements of the English language. (See Appendix A).

Forms A, A-1, B, and B-1 of the M.C.I.T. (see Appendix B) were used as the second test. Each subject read a single list of eight three-word sequences.

As the third test, each subject gave a one-minute impromptu talk on the subject of "My Life's Ambition."

All materials of the three speech tests were recorded on magnetic tape using an Ampex 351 recorder.

Psychological Test Battery

The purpose of administering the psychological test battery was to assess personality differences between high and low proficiency speakers. The battery consisted of the Edwards Personal Preference Schedule (EPPS), Guilford-Zimmerman Temperament Survey (GZTS), and California Psychological Inventory (CPI). These tests, each covering emotional, social, and motivational aspects of behavior, but based on different theoretical frameworks and employing different principles of test construction, were used in order to provide a more comprehensive description of the behavioral differences manifested between groups.

In order to reduce the probability of fatigue, the psychological test battery was administered in two sessions. Administration was in accordance with procedures prescribed in the Manuals provided by the publishers.

Because of normal attrition and other factors not all subjects completed the entire psychological test battery. The populations for the three tests were EPPS, 932; GZTS, 944; CPI, 942.

Socio-Economic Assessment Inventory

As an adjunct to the psychological tests a Socio-Economic Assessment Inventory (SEAI) was constructed to provide background, social, cultural, and economic information about the sample population. The importance of these peripheral data rest with their potential for identifying specific patterns within the larger context of environmental variables which might have contributed to psychological differences found to exist between speaker groups.

An initial questionnaire was constructed and underwent three major revisions. In order to insure that all items were meaningful and unambiguous, the instrument was pretested on a sample of students enrolled in the summer Pre-College Program at Howard University. In its final form, the inventory consisted of forty-two open-ended and multiple-choice questions and was administered to all subjects in the sample (See Appendix C).

Speech and Language Attitude Inventory

As a further aid to diagnosis a twenty-five item Likert-type scale was constructed to assess attitudes toward speech and language standards and usage. Most of the statements on the Speech and Language Attitude Inventory (SLAI) were adapted from statements in speech textbooks; others were original with the study. Each item was stated in positive form and five categories of response were provided from "Strongly Agree" to "Strongly Disagree." (See Appendix D).

The SLAI was administered to 607 subjects in the high and low proficiency groups. The moderate speaker group was not included in this testing session.

Results

Speech Evaluation and Classification

Following administration of the speech tests, a panel of judges, listening through individual headsets, evaluated the recorded samples. The articulation passage and the impromptu speech sample of each subject were assigned a rating on a nine-point equal-appearing interval-scale (Sherman and Morrison, 1955), where one was the highest and nine the lowest possible rating. The word lists of the M.C.I.T. were played back against a background of white noise at a 4db S/N ratio and scored on the basis of the percentage found to be intelligible (understood correctly) by the judges.

Subjects were designated as proficient (N=234), non-proficient (N=323), or moderate (N=652) on the basis of a formula combining the judges' ratings with scores from the intelligibility tests (see Appendix E). The moderate group was not given further consideration in terms of the immediate objectives of the present study.

The panel of judges consisted of three trained speech teachers, a professional teacher with no training in speech, an educational counselor, and three undergraduate speech majors.

All of the speech samples were rated by at least two judges. In order to determine whether all eight judges were rating the speakers in the same manner, a check of the judges' ratings was performed. Ten speakers were randomly chosen for rating by all of the judges and reliability tests were undertaken.

The results of the inter-judge reliability test indicated that agreement was high among all of the eight judges in their ratings of proficiency and that complete agreement was obtained in their evaluations of intelligibility. The analysis of variance shown in Table 1 indicates that the nine-point equal-appearing interval scale effectively and consistently discriminated speaker proficiency.

TABLE 1

ANALYSIS OF VARIANCE OF JUDGES' RATINGS OF
ARTICULATION PASSAGE AND IMPROMPTU TALK

Source of Variation	Sum of Squares	df	Mean Squares	F	P
Subjects	35.09	7	5.01	4.21	.01
Trials	145.36	9	16.15	13.57	.01
Subjects X Trials	75.54	63	1.19		
Total	255.99	79			

As shown in Table 2, the analysis of variance of the judges' multiple-choice intelligibility scores yielded no significant differences and showed this technique to have high reliability.

Table 3 shows that high reliability was also found to exist between judges' proficiency or merit ratings and the more objectively obtained multiple-choice intelligibility scores.

These findings provide ample support for the eventual classification of speakers in one of the extreme groups, low or high. It is also evident that many more persons would be classified as low under a less rigorously applied set of criteria than that described in the appendices.

TABLE 2

DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO JUDGES' RATINGS OF ARTICULATION PASSAGE AND IMPROMPTU TALK

Means	3.7	3.9	4.1	4.3	4.6	4.6	4.7	6.0*	Shortest Significant Range
3.7		.2	.4	.6	.9	.9	1.0	2.3	1.10
3.9			.2	.4	.7	.7	.8	2.1	1.15
4.1				.2	.5	.5	.6	1.9	1.18
4.3					.3	.3	.4	1.7	1.19
4.6						.0	.1	1.4	1.20
4.6							.1	1.4	1.21
4.7								1.3	1.22

*Significantly different from all other means at the .05 level.

TABLE 3

ANALYSIS OF VARIANCE OF JUDGES' SCORES ON THE MULTIPLE-CHOICE INTELLIGIBILITY TEST

Source of Variation	Sum of Squares	df	Mean Squares	F	P
Subjects	247.75	7	35.39	.97	N.S.
Trials	398.50	9	44.28	1.22	N.S.
Subjects X Trials	230.50	63	36.59		
Total	876.75	79			

Psychological Correlates and Group Profiles

In order to assess psychological differences between the proficient and non-proficient speakers, comparisons were performed on the 43 test variables of the three different instruments. Despite differences inherent in the three testing instruments, considerable response patterning was obtained, and certain similar types of test variables consistently differentiated speaker groups.

Edwards Personal Preference Schedule

The EPPS purports to measure 15 manifest needs. On this instrument the high and low proficiency speakers differed significantly (.05 level) on the variable termed Affiliation. This suggests a stronger need to be loyal, to participate in friendly groups, and to share or do things with friends on the part of the high proficiency group. The high and low proficiency speakers also differed significantly on Deference (.01 level) and Change and Heterosexuality (.05 level). These differences suggest for Deference that the low proficiency speakers let others make decisions, accept leadership from others, and conform to what is expected of them. With reference to Change and Heterosexuality the high proficiency speakers manifested a need to do new and different things, to meet new people, and to take up new fads and fashions. These comparative data are illustrated in Tables 4 and 5 according to male and female groupings.

Guilford-Zimmerman Temperament Survey

Ten unique personality traits, identified by factor analysis, comprise the measures of the GZTS. These traits involve the introversion-extroversion and ascendance-submission patterns in interpersonal relationships. In comparing

TABLE 4

COMPARISONS OF MEANS FOR HIGH AND LOW
PROFICIENCY MALE SPEAKER GROUPS FOR EPPS VARIABLES

	MEANS	
Variables	High Males	Low Males
Achievement	15.84	15.27
Deference	12.21	13.10
Order	11.37	12.54
Exhibition	13.64	14.01
Autonomy	13.67	13.31
Affiliation	14.75*	13.26
Intraception	14.85	16.06
Succorance	11.13	11.62
Dominance	14.75	14.17
Abasement	12.42	13.04
Nurturance	15.22	14.43
Change	15.49	14.66
Endurance	14.33	14.34
Heterosexuality	18.25	17.39
Aggression	12.16	12.76
N	67	163

*Significant at the .05 level

TABLE 5

COMPARISONS OF MEANS FOR HIGH AND LOW
PROFICIENCY FEMALE SPEAKER GROUPS FOR THE EPPS VARIABLES

	MEANS	
Variables	High Females	Low Females
Achievement	14.40	14.07
Deference	11.79	13.36**
Order	11.15	11.99
Exhibition	13.43	13.24
Autonomy	12.76	11.79
Affiliation	14.95	15.47
Intraception	17.60	17.17
Succorance	12.74	12.54
Dominance	12.31	11.72
Abasement	14.45	15.39
Nurturance	16.67	17.24
Change	17.39*	16.31
Endurance	13.45	14.03
Heterosexuality	15.75*	14.21
Aggression	10.96	11.30
N	187	110

*Significant at the .05 level
**Significant at the .01 level

the high and low proficiency speakers on the GZTS, significant differences were found for the traits of Ascendance (.01 level) and Objectivity (.05 level) in favor of the high proficiency group. These findings indicate that the high proficiency speakers possess stronger qualities for leadership, for speaking with individuals and in public, and in persuading others. The high and low proficiency speakers differed also on the trait Restraint (.01 level), with the high proficiency speakers characterized as more serious-minded, deliberate, and persistent. These results are presented in Tables 6 and 7 respectively and analyzed by sex groupings.

TABLE 6

COMPARISONS OF MEANS FOR HIGH, AND LOW
PROFICIENCY MALE SPEAKER GROUPS FOR GZTS VARIABLES

	MEANS	
Variables	High Males	Low Males
General Activity	15.98	15.05
Restraint	16.12	15.71
Ascendance	17.86**	16.01
Sociability	18.94	18.39
Emotional Stability	17.61	16.64
Objectivity	16.56*	15.11
Friendliness	12.97	12.02
Thoughtfulness	18.52	18.31
Personal Relations	14.17	13.63
Masculinity	17.50	17.53
N	66	167

*Significant at the .05 level
**Significant at the .01 level

Important to note in examining these tables is the consistency with which the high group demonstrates superiority. Presented graphically in a later section are more comparative profiles dramatizing discrepancies between groups which give rise to an entire new series of questions.

TABLE 7

COMPARISONS OF MEANS FOR HIGH AND LOW PROFICIENCY FEMALE SPEAKER GROUPS FOR GZTS VARIABLES

	MEANS	
Variables	High Females	Low Females
General Activity	15.74	14.20
Restraint	16.19**	15.97
Ascendance	15.85	14.77
Sociability	20.39	19.31
Emotional Stability	16.05	15.62
Objectivity	15.84	15.57
Friendliness	14.63	14.02
Thoughtfulness	19.72	18.26
Personal Relations	14.33	13.15
Masculinity	10.38	9.78
N	191	113

**Significant at the .01 level

California Psychological Inventory

On the CPI the total set of variables is intended to provide a comprehensive survey of an individual from a social interaction point of view. The CPI scales are addressed principally to personality characteristics important for social living and social interaction. The 18 CPI scales are grouped into four broad classes: I. Poise, Ascendance, and Self-Assurance; II. Socialization, Maturity, and Responsibility; III. Achievement Potential and Intellectual Efficiency; and IV. Intellectual and Interest Modes. When comparisons were made on the CPI variables, significant differences in favor of the high proficiency speakers were found for Capacity for Status (.01 level), Self-Acceptance, Tolerance, Achievement via Independence, and Intellectual Efficiency (.05 level). These results imply that high proficiency speakers have more of the qualities and attributes which underlie and lead to status; they are more active and resourceful, and more effective in communication. The high proficiency speakers also have a greater sense of personal worth, are more tolerant and accepting, independent and self-reliant, capable and intelligent. (Table 8).

TABLE 8

COMPARISONS OF MEANS FOR HIGH AND LOW
PROFICIENCY MALE SPEAKER GROUPS FOR CPI VARIABLES

	MEANS	
Variables	High Males	Low Males
Dominance	28.06	26.69
Capacity for Status	19.39**	18.00
Sociability	26.05	25.08
Social Presence	34.88	34.57
Self-Acceptance	22.70*	21.36
Well-being	33.23	33.05
Responsibility	29.30	28.15
Socialization	35.35	35.68
Self-control	27.29	26.73
Tolerance	19.95*	18.18
Good Impression	17.88	16.79
Communality	24.26	24.17
Achievement via Conformity	25.88	25.65
Achievement via Independence	17.85*	16.51
Intellectual Efficiency	36.47*	34.70
Psychological Mindedness	10.70	10.24
Flexibility	10.00	9.06
Femininity	16.83	16.74
N	66	168

*Significant at the .05 level
**Significant at the .01 level

Inasmuch as four of the five significant variables are included in Classes I and III, it would appear that the areas of Poise, Ascendancy and Self-Assurance (Class I), and Achievement Potential and Intellectual Efficiency (Class III) are most discriminating between high and low speech proficiency populations. This trend is even more strikingly revealed in the comparison of the populations according to sex. On the CPI the high and low proficiency female speakers differed significantly on five of the six scales of Class I which share a common emphasis on feelings of interpersonal and intrapersonal adequacy: Dominance, Capacity for Status, Sociability, Social Presence, and Self-Acceptance; on 2 scales of Class II which are principally concerned with social norms and values and dispositions to observe or reject such values, namely, Tolerance and Communality; and on two of the three scales of Class III which have a common bearing on matters of academic and intellectual endeavor, Achievement via Independence, and Intellectual Efficiency. These results also present profiles of high and low proficiency speakers which can be interpreted as follows: the high proficiency speakers are more poised, assertive, and socially forward than the low proficiency speakers, are more observant and accepting of social norms and values, possess more positive behaviors which lead to achievement and exhibit a greater degree of personal and intellectual efficiency. (Table 9).

As a sub-study of the research, comparisons were made between the study sample composed primarily of Negro students and the normative college populations for the psychological test battery variables to explore possible differences in personality structure. These data are presented in Appendix F.

Summary

In summary, of a total of the 43 psychological variables included in the battery, 4 on the EPPS, 3 on the GZTS, and 9 on the CPI most significantly differentiated between speech proficiency groups. The proficient speakers manifested more of those qualities which are important and desirable for personal adequacy, emotional tolerance, interpersonal relationships, and academic achievement. They are more aggressive and assertive, more assured and self-confident, more resourceful and independent, and more tolerant and flexible than their low proficiency counterparts. These qualities should enable them to derive greater satisfaction, personal gratification and success from interpersonal and academic situations.

The existence of two unique personality profiles has been demonstrated by the findings of this study as a function of speech proficiency within the sample population. Subjects in the high proficiency group, when compared with their low proficiency counterparts, achieved higher scores on tests of personal adjustment and social functioning, and manifested a personality structure which more closely approximated the established norms for the instruments selected.

TABLE 9

COMPARISONS OF MEANS FOR HIGH AND LOW
PROFICIENCY FEMALE SPEAKER GROUPS FOR CPI VARIABLES

	MEANS	
Variables	High Females	Low Females
Dominance	27.71*	26.07
Capacity for Status	18.67**	17.05
Sociability	25.31*	23.18
Social Presence	33.91**	32.10
Self-Acceptance	22.32**	20.77
Well-being	33.52	32.97
Responsibility	30.64	30.29
Socialization	36.97	37.40
Self-control	26.58	27.73
Tolerance	20.04*	18.71
Good Impression	16.54	17.35
Communality	25.51*	24.77
Achievement via Conformity	26.43	26.23
Achievement via Independence	17.83*	16.74
Intellectual Efficiency	36.43**	34.00
Psychological Mindedness	10.09	9.76
Flexibility	9.73	8.97
Femininity	23.38	23.17
N	185	110

*Significant at the .05 level
**Significant at the .01 level

In analyzing further the achievement of the two groups on the psychological tests, it can be noted that the scores of the high proficiency speech groups were consistently higher on most if not all variables of a given instrument. This becomes most apparent when examining the profiles for combined male and female scores on the Guilford-Zimmerman Temperament Survey shown in Figure 1. Almost as sharply defined is a consistent superiority on the California Psychological Inventory as shown in Figure 2. Except for the variable entitled Sociability, the low proficiency speaker group showed

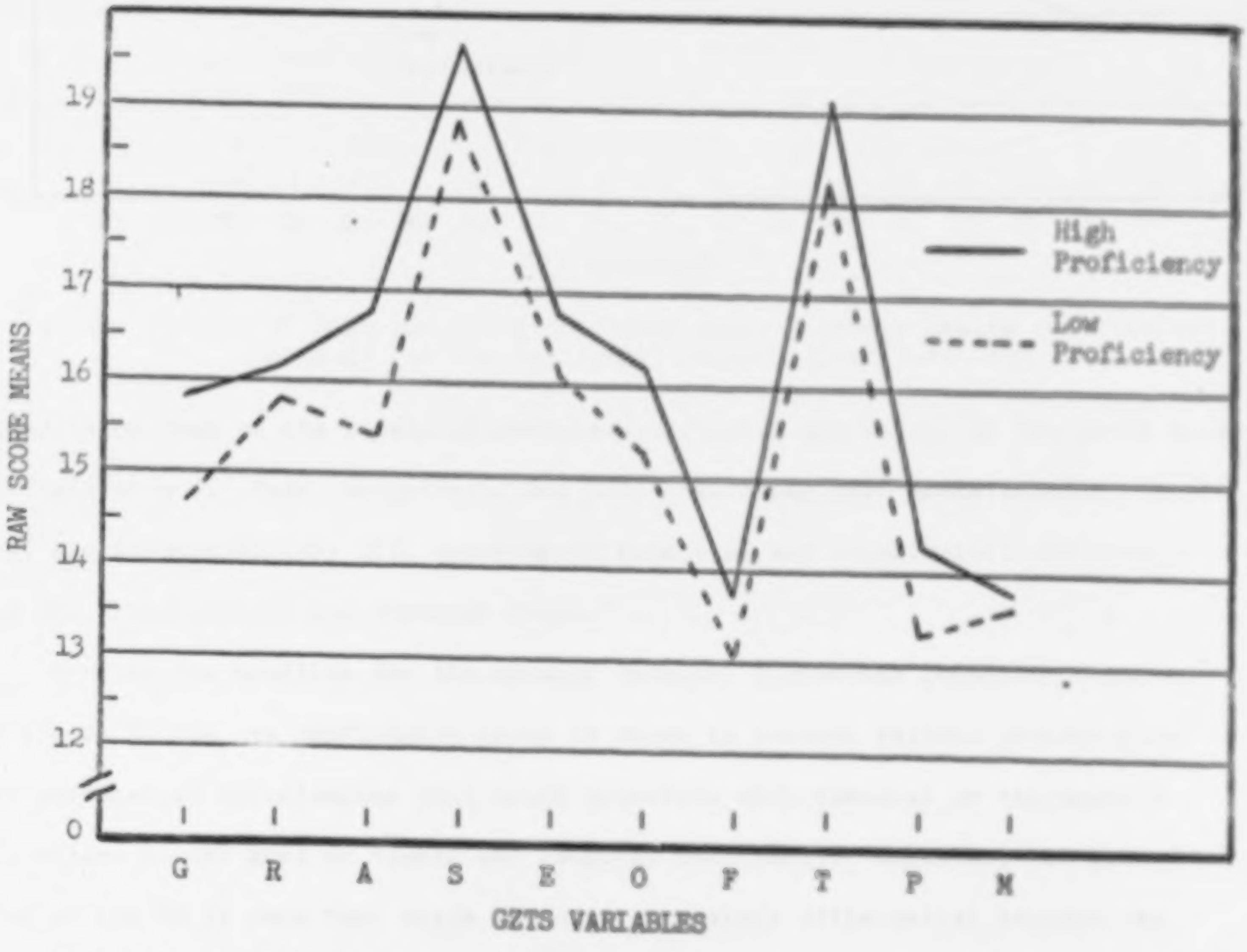

Fig. 1. Profile of high and low proficiency speaker groups (males and females combined) for the Guilford-Zimmerman Temperament Survey.

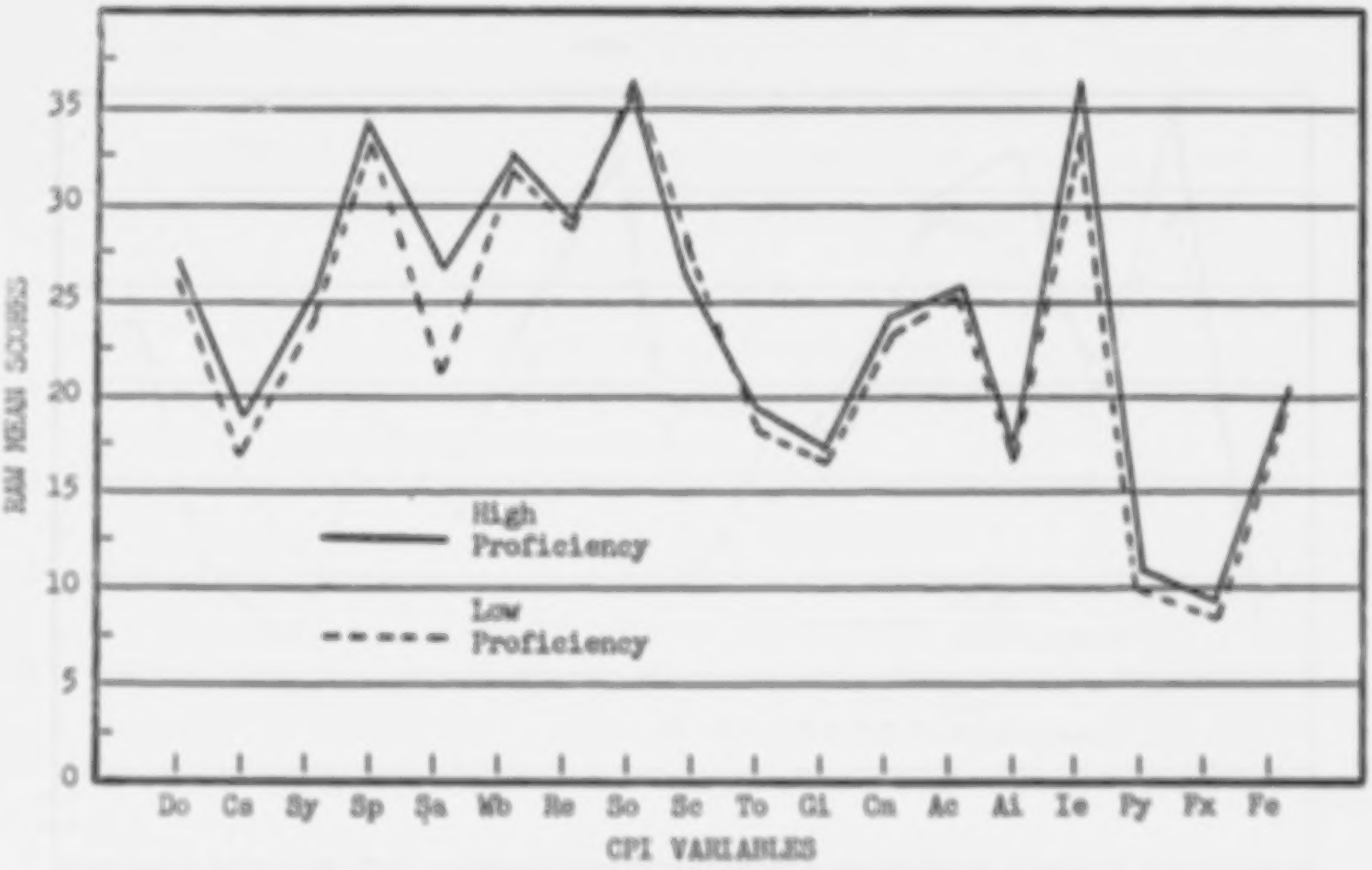

Fig. 2. Profile of high and low proficiency speaker groups (males and females combined) for the California Psychological Inventory.

deficits on each of the remaining seventeen variables and on all of the group classifications-- I. Pose, Ascendancy, and Self-Assurance; II. Socialization, Maturity, and Responsibility; III. Achievement Potential and Intellectual Efficiency; and IV. Intellectual and Interest Modes.

Even on the profiles for the Edwards Personal Preference Schedule presented in Figure 3, the low proficiency group is shown to possess serious psychological and personality deficiencies that could interfere with remedial or therapeutic activities in the area of speech and language deficiency. Moreover, the patterning of traits is such that again there is a constant differential between the two groups with the high speakers scoring higher on the desirable characteristics and lower on the undesirable.

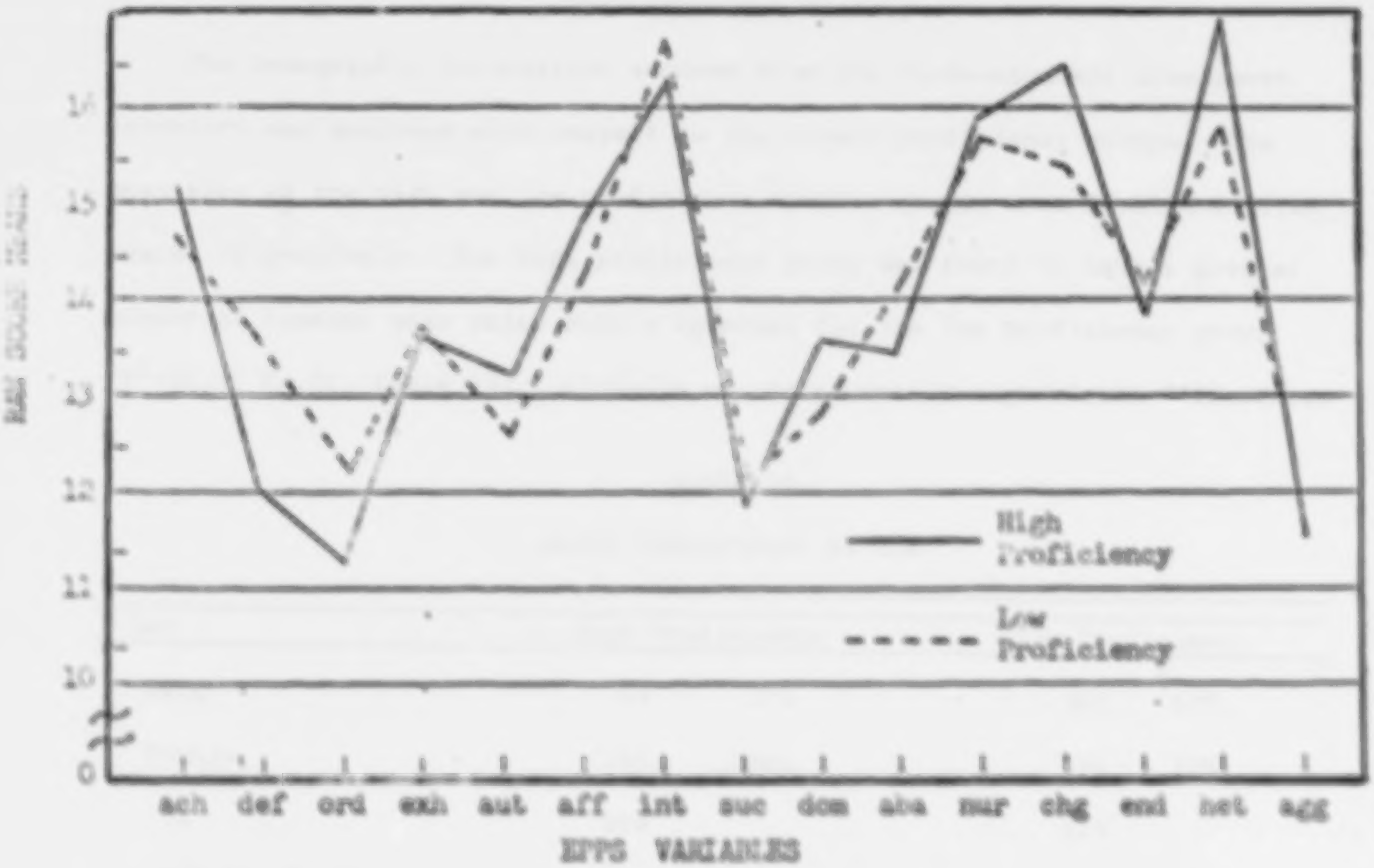

Fig. 3. Profile of high and low proficiency speaker groups (males and females combined) for the Edwards Personal Preference Schedule.

Further comparisons of the results achieved on the psychological test battery leads to the expectation that later inspection of academic records will yield positive correlations with speech proficiency. In other words the psychological test scores become predictor variables for academic achievement. This consideration should be kept in mind when attempting to evaluate the long-and-short-run implications of the series of findings to evolve from this investigation. Important to remember also is that the present work makes no attempt to identify in precise terms explicit causal factors. Yet, it is not possible to avoid the apparent implications of these results; namely, that low proficiency in oral performance under a variety of conditions is in all probability a cause as well as a result of psychological and other very relevant variables.

Socio-economic Factors

The demographic information secured from the Socio-Economic Assessment Inventory was analyzed with respect to the speech proficiency groups. The mean ages of the high and low proficiency speaker groups were 17.86 and 18.18 years, respectively. The high proficiency group was found to have a greater number of females than males with a reversal for the low proficiency group (X^2=58.9; $P<.01$; Table 10). Although no statistically significant differences were found between the groups in terms of position among siblings, the trend was for the high proficiency speakers to be the only, the youngest, or the oldest child. A greater number of the low proficiency speakers were between the youngest and oldest child (Table 11). The low proficiency group also had a greater mean number of siblings (3.5) than the high proficiency speaker group (2.9). There were no significant findings when birthplace of subjects and parents separately were analyzed by speech region. These data are analyzed in Tables 12, 13, and 14.

TABLE 10

GROUP COMPARISONS BY SEX

Sex	High Proficiency		Low Proficiency	
Male	89	31%	202	63%
Female	195	6[illegible]%	121	37%
N	284		323	

$X = 58.91$; $P < .01$

In order to assess the degree of home and family stability, several factors were analyzed. It was found that no significant differences existed between

TABLE 11

STUDENTS' POSITION AMONG SIBLINGS

Position	High Proficiency		Low Proficiency	
Only child	51	18%	44	14%
Youngest child	67	24%	69	21%
Oldest child	98	34%	99	31%
Between oldest & youngest	68	24%	108	34%
N	284		320	
X =7.52; P<.10				

TABLE 12

BIRTHPLACE OF STUDENT BY SPEECH REGION

Region	High Proficiency		Low Proficiency	
Eastern	69	24%	62	19%
Southern	181	64%	222	69%
General American	34	12%	39	12%
N	284		323	
X^2 = 2.393; P< .50				

TABLE 13

BIRTHPLACE OF FATHER BY SPEECH REGION

Region	High Proficiency		Low Proficiency	
Eastern	31	11%	43	13%
Southern	209	76%	252	79%
General American	34	13%	24	8%
N	274		319	
X^2 = 4.292; P< .20				

TABLE 14

BIRTHPLACE OF MOTHER BY SPEECH REGION

Region	High Proficiency		Low Proficiency	
Eastern	41	15%	35	11%
Southern	204	73%	247	80%
General American	33	12%	28	9%
N	278		310	

$X^2 = 3.252;\ P < .20$

the high and low proficiency groups as to whether parents were separated or divorced ($X^2=2.33;\ P < .50$) or whether subjects lived with natural parents or others up until coming to college ($X^2=.40;\ P < .90$), (Tables 15 and 16).

TABLE 15

PARENTS SEPARATED OR DIVORCED

Response	High Proficiency		Low Proficiency	
Yes	57	20%	73	23%
No	205	72%	234	72%
Don't know	22	8%	16	5%
N	284		323	

$X^2 = 2.33;\ P < .50$

When activities involving family members were analyzed, it was found that high proficiency speakers celebrated birthdays together more often ($X^2=15.15:\ P < .001$), and exchanged gifts more often on special occasions ($X^2=7.62;\ P < .05$) than low proficiency speakers (Tables 17 and 18). No significant differences were found between groups in family viewing of television and taking trips (Tables 19 and 20).

TABLE 16

PERSONS WITH WHOM STUDENT LIVED UNTIL COMING TO COLLEGE

Person (s)	High Proficiency		Low Proficiency	
Both natural parents	191	67%	219	68%
Mother or father only	55	19%	57	18%
Others	38	14%	47	14%
N	284		323	

$X^2 = .40; P < .90$

TABLE 17

FAMILY CELEBRATION OF BIRTHDAYS

Frequency	High Proficiency		Low Proficiency	
Often	227	80%	216	67%
Seldom	45	16%	94	29%
Never	12	4%	13	4%
N	284		323	

$X^2 = 15.15; P < .001$

TABLE 18

FAMILY EXCHANGING GIFTS

Frequency	High Proficiency		Low Proficiency	
Often	237	84%	240	74%
Seldom	41	14%	74	23%
Never	6	2%	9	3%
N	284		323	

$X^2 = 7.62; P < .05$

TABLE 19

FAMILY VIEWING TELEVISION TOGETHER

Frequency	High Proficiency		Low Proficiency	
Often	222	78%	266	82%
Seldom	56	20%	50	16%
Never	6	2%	7	2%
N	284		323	

$X^2 = 1.89; P < .50$

TABLE 20

FAMILY TAKING TRIPS TOGETHER

Frequency	High Proficiency		Low Proficiency	
Often	147	52%	145	45%
Seldom	121	42%	160	49%
Never	16	6%	18	6%
N	284		323	

$X^2 = 3.05; P < .30$

In the areas of achievement and leadership, defined in terms of awards received in high school and offices held in high school groups, respectively, the high proficiency speakers received a significantly greater number of scholarship, citizenship, and sports awards than the low proficiency speakers ($X^2 = 25.63; P < .001$). The high proficiency speakers were also more frequently elected to leadership roles in high school groups ($X^2 = 6.74; P < .05$), (Tables 21 and 22).

TABLE 21

AWARDS RECEIVED IN HIGH SCHOOL

Number	High Proficiency		Low Proficiency	
None	68	24%	45	14%
One	71	25%	141	44%
Two or more	145	51%	137	42%
N	284		323	

$X^2 = 25.63$; $P < .001$

TABLE 22

OFFICES HELD IN HIGH SCHOOL GROUPS

Number	High Proficiency		Low Proficiency	
None	75	26%	117	36%
One	105	37%	103	32%
Two or more	104	37%	103	32%
N	284		323	

$X^2 = 6.74$; $P < .05$

Comparisons of the groups on the variables of family income, educational achievement of parents, and occupation of father revealed significant differences. The family incomes of the high proficiency group were significantly larger ($X^2 = 12.90$; $P < .02$) and both their parents tended to have completed more years of schooling (father-$X^2 = 24.03$), $P < .001$; mother-$X^2 = 22.61$, $P < .001$). (Tables 23, 24, and 25).

When occupational classifications of fathers were compared, the high proficiency group had a greater percentage of fathers in Professional, Managerial, and Clerical occupations, whereas the low proficiency group had a greater percentage

TABLE 23

FAMILY INCOME

Income	High Proficiency		Low Proficiency	
Under $4,000	14	5%	34	11%
$4,001-$4,999	26	10%	40	13%
$5,000-$7,499	82	31%	106	35%
$7,500-$9,999	62	23%	61	20%
Above $10,000	81	31%	66	21%
N	265		307	

$X^2 = 12.90$; $P < .02$

TABLE 24

EDUCATION OF FATHER

Attainment	High Proficiency		Low Proficiency	
Professional or Graduate School	51	19%	31	11%
College Graduate	45	17%	36	13%
Attended College	37	14%	32	11%
High School Graduate	80	29%	71	25%
Attended High School	31	11%	60	21%
Below High School	28	10%	54	19%
N	271		284	

$X^2 = 24.03$; $P < .001$

in skilled or semiskilled and unskilled occupations (Table 26).

TABLE 25

EDUCATION OF MOTHER

Attainment	High Proficiency		Low Proficiency	
Professional or Graduate School	40	14%	26	8%
College Graduate	61	22%	41	13%
Attended College	38	14%	37	11%
High School Graduate	87	32%	136	42%
Attended High School	36	13%	51	16%
Below High School	13	5%	28	8%
N	275		319	

$X^2 = 22.61$; $P < .001$

TABLE 26

OCCUPATION OF FATHER

Occupation	High Proficiency		Low Proficiency	
Professional	70	28%	49	17%
Managerial	36	15%	33	11%
Clerical	30	12%	42	15%
Skilled or Semiskilled	84	34%	110	39%
Unskilled	27	11%	51	18%
N	247		285	

$X^2 = 14.06$; $P < .01$

The results of the SEAI demonstrate the relationship between environmental factors and speech proficiency and delinate some of those variables within the larger context that are most significant in contributing to psychological and linguistic development. High proficiency speakers tend more often than low proficiency speakers to have parents who have received more formal education, whose occupational statuses are higher, and whose income is greater. The size of their family is more often smaller, and they are more likely to be the only, the oldest, or youngest child. Explanations of speech and language differences favoring higher socio-economic groups have stressed the importance of the environment in providing greater verbal stimulation and reinforcement, increased motivation, and more numerous opportunities for learning and practice. The data obtained for the speaker groups of this study lend strong support to these explanations.

Substantiation for the opportunities afforded for learning and practice derives from the findings that greater family participation, leadership, and achievement activities characterize high proficiency speakers. The high proficiency speaker is likely also to have been provided with encouragement and reinforcement for verbal and academic proficiency and consequently motivated to some leadership roles in social activities, as well as to strive to achieve some measure of academic success.

These findings reaffirm the notion that speech proficiency and personality structure are largely socially conditioned and are products of the environment.

Attitudes and Standards

The responses of the two speaker groups to the 25 items on the Speech and Language Attitude Inventory were analyzed by chi-square. Of the 25 items, 2, 4, and 11 reached statistical significance. All three stress speech behavior in informal situations. For the remaining 22 items, the responses of the two groups were in general agreement. These findings tend to support the existence of a similarity in attitudes between proficient and non-proficient speakers. The lack of discriminability between groups suggests that a positive attitude is not a prime prerequisite for speech adequacy. Both groups demonstrated an awareness of what constitutes adequate or desirable speech and language behavior and of the importance of speech and language as a social tool. The differences between the groups do not appear to be related to differences in their underlying attitudes. The low proficiency speakers may have responded to the items in a socially desirable manner, but lack the resources to effect this proficiency in their own language usage. When the high and low proficiency speakers were asked to judge their own speech, their parents' speech, and the speech of close friends, significant differences in judgments were found. These analyses are presented in Tables 27, 28, and 29. The high proficiency speakers judged their own speech, their parents' speech, and that of their close friends to be excellent or very good a significantly greater number of times than the low proficiency speakers. These findings further suggest that the low proficiency speakers are generally aware of what constitutes acceptable and desirable speech, and are aware of their own deficiencies in this regard. The fact that they judged the speech of their parents and close friends to be less than adequate emphasizes the influence of the linguistic environment on the adequate development of speech potential. It could be that good speakers tend to associate with good speakers and poor speakers tend to associate with poor speakers. An implication here is the extent of the peer group influence, that is, the nature and extent of speech and language retardation attributable to group pressures to conform to the standards and speaking patterns of the group.

TABLE 27

JUDGMENT OF OWN SPEECH

Judgment	High Proficiency		Low Proficiency	
Excellent or Very Good	165	59%	95	30%
Fair or Poor	117	41%	225	70%
N	282		320	

$X^2 = 50.76$; $P < .001$

TABLE 28

JUDGMENT OF PARENTS' SPEECH

Judgment	High Proficiency		Low Proficiency	
Excellent or Very Good	180	64%	147	46%
Fair or Poor	101	36%	173	54%
N	281		320	

$X^2 = 19.80$; $P < .001$

TABLE 29

JUDGMENT OF CLOSE FRIENDS' SPEECH

Judgment	High Proficiency		Low Proficiency	
Excellent or Very Good	162	58%	139	44%
Fair or Poor	119	42%	180	56%
N	281		319	

$X^2 = 84.12$; $P < .001$

Evaluation of Remediation Outcomes

Subjects and Procedures

In order to experimentally test the third hypothesis of the study, 140 speakers were randomly selected from the low proficiency group and in groups of 20 exposed to the following procedures during the second semester of the 1964-65 academic year.

Group 1. Informed of the results of the speech tests, namely that their speech was low in proficiency, and given no further instruction or information;

Group 2. Informed of the results of the speech tests and told of the University facilities which could offer assistance (Speech Clinic and Speech Laboratory) if they wished to attend on a voluntary basis;

Group 3. Informed of the results of the speech tests and required to attend the Speech Clinic and Laboratory for at least one session weekly for 10 weeks;

Group 4. Informed of the results of the speech tests and required to attend remedial class for three hours per week for 10 weeks, not permitted to attend Speech Clinic or Laboratory;

Group 5. Informed of the results of the speech tests and required to attend remedial speech class for three hours per week for 10 weeks. In addition, they were required to participate in a group guidance counseling session one hour each week;

Group 6. Informed of the results of the speech tests, required to attend remedial speech class for three hours per week for 10 weeks, required to attend a group guidance counseling session one hour per week, and required to attend the Speech Clinic and Laboratory;

Group 7. (Control Group). Received no information or instructions.

The students in Groups 1 and 2 were not contacted again during the semester. All students required to report to the Speech Clinic were treated by two trained speech pathologists. They reported to the clinic at least one-half hour weekly for a period of ten weeks. Students were seen on both an individual and group basis, with no group consisting of more than five students. The group technique permitted group exchange of ideas and criticisms. Individual programs were also designed for each student, and traditional techniques in articulation therapy were employed. These techniques involved stimulation and discrimination, and reproduction of the error sound in isolation, in nonsense syllables, in words, in phrases, in sentences, and in conversational speech. In addition, each student was required to make up lists of words and sentences which contained his particular error sounds and was encouraged to practice these in his leisure time. Students with phonation difficulties were given breathing exercises, practice in correct inflectional patterns, and exercises for intensity and phrasing. Other students required lip and tongue exercises and were taught to make the contacts between tongue and lips required for production of specific speech sounds.

The Speech Laboratory was equipped with two Ampex E-65 Language Trainers, easily operable by the students, and drill tapes containing lessons such as "Sounds of the English Language," "Intonation and Stress Patterns," "Phrasing," "Troublesome s," etc. The Laboratory was available to students in Group 2 on a voluntary basis, however, students in Groups 3 and 6 were required to attend the Laboratory and practice with the tapes one-half hour weekly for 10 weeks. Also available was a 36 station language laboratory of the type used commonly in foreign language instruction. This was used for pattern drill practice.

Group guidance counseling sessions were introduced to help the students in Group 6 with adjustment problems. Six to eight students were assigned to each group. The group counselors were graduate level trainees under the supervision of a competent professional person. The sessions were tape-recorded to enable later evaluation by a professional psychotherapist. Prior to attending the group counseling sessions, each student attended individual interviews with a qualified psychologist. The purposes of these interviews were to orient the students to the remedial program, to discuss the academic and adjustment problems students had experienced during the first semester, and to get some indication of the attitudes students held toward speech remediation. Follow-up interviews were conducted to assess attitudinal changes and changes in academic and social adjustment. A more detailed statement concerning this aspect of the research is included in Appendix G.

The formal classroom sessions were conducted three hours a week for ten weeks. No collegiate credit was given. The general goals of the remedial instruction were as follows:

1. To improve the student's facility and proficiency in oral usage of the English language;
2. To develop improved listening skills;
3. To increase understanding of varying speech standards within the United States and develop an awareness of the second language concept;
4. To help the students become more sensitive to and understand the importance of meeting acceptable standards;
5. To enable and motivate the students to critically analyze their own speech and to recognize areas in need of attention;
6. To provide opportunities for regular drill and practice under trained supervisors in order to improve intelligibility and general proficiency.

All students were given an early orientation to the classroom instructional program, i.e., explanation of purposes, goals, and possible benefits to be derived. Special lectures were provided during the initial class meetings on such topics as Importance of Speech Standards, Types of Speech Communities, Communication Skills--Reading, Writing, Listening, and Speaking, Qualities of the Voice, and Articulation and Pronunciation. Selected chapters from a

Small group sessions (above) enabled students to discuss mutual problems in a sympathetic environment where criticisms could be exchanged objectively. At the same time the students were practicing the arts of discussion, persuasion, and argumentation. Students were also given oscilloscopic displays of their speech patterns while listening to tape recordings (lower left) and practicing with self-teaching devices (lower right).

textbook (Hurst and Fenderson, 1965) which recognized the special problems of the socially disadvantaged and the culturally different by examining stereotypes, semantic barriers, and other obstacles to effective communication were assigned for reading and classroom discussion.

Emphasis in the classroom situation was placed on verbal interaction between instructor and students and among and between students. The students were encouraged to participate freely in all discussion which took place in the classroom. Following the introductory lectures, all students gave three minute introductory speeches which were tape-recorded, evaluated in depth by the instructor on evaluation forms (Appendix H), and later played back during class for comments from the students. The instructor added remarks only when the students failed to point out important good or bad qualities.

Small group discussions were conducted as a part of most class sessions. The format provided for two groups of five students each discussing and two groups of five students each observing. Each discussion group had a leader who introduced the topic for discussion. The observing groups made notes about speech errors, degree of participation, logic of the discussion, etc. which they communicated to the discussants after the discussion period. For the next discussion meeting groups were reversed and new discussion leaders were chosen.

Methods of Analysis

The following aspects of the program were evaluated at the end of the second semester:

1. Before-after comparisons were made of speech proficiency ratings and intelligibility scores for the six experimental groups and the control group.
2. Grade point averages of randomly selected high proficiency speakers and the six experimental groups were compared at the end of the second semester.

Classroom activities (above) included opportunities for practice in techniques for formal presentations to large groups as well as informal discussions in small group settings. Activity in a laboratory setting (below) included self-instructional sessions in language laboratories of the type used traditionally for teaching foreign languages in high schools and colleges within the United States.

3. Comparisons were made among two of the experimental class groups and the control group of statements contained in a written essay on these questions: (a) Why is good speech important? and (b) How does one overcome a speech problem? The aim was to evaluate the effectiveness of the procedures and instructions used in the remedial classes and the speech clinic.

4. Comparisons were also made of proficiency ratings assigned the experimental groups and the control group to ten randomly selected speech samples of other good and poor speakers.

5. The California Psychological Inventory was administered and group comparisons were made.

6. The speech battery was given again to 123 experimental and control subjects (data for five experimental subjects were missing because three withdrew from the University and two did not report for the final examinations). The procedures used in the initial phase of the study were followed in the administration of the post-instructional speech tests. A master tape was prepared which contained 123 pre-instructional samples. The same judges and procedures used in the first phase of the study rated the pre and post-speech samples and scored a second set of intelligibility word tests.

Results

Effects of Treatment Procedure on Speech

Pre-post comparisons were made of the speech ratings and intelligibility scores for the six experimental groups and the control group by means of t-tests. All groups showed some improvement in general speech proficiency or merit, but statistically significant improvement occurred only for Groups 3, 4, 5, and 6, the groups which attended remedial speech classes, and the speech clinic, or the group counseling sessions. (Table 30).

These findings indicate that the procedures utilized in classroom instruction and the speech clinic were both effective in producing improvements. The control group and the groups who were merely informed of low proficiency ratings failed to make any significant improvements in proficiency.

Analysis by t-tests of pre-post intelligibility scores for the six experimental groups and the control group also showed that only the group which was required to attend remedial speech classes, group guidance counseling sessions, and the speech clinic (Group 6) made statistically significant improvement in intelligibility (.01 level). (Table 31). This indicates that the total approach made possible by use of the test battery was superior to any other in improving intelligibility. These results are illustrated in Figures 4, 5, 6, and 7.

TABLE 30

MEAN* COMPARISONS OF PRE-POST SPEECH RATINGS FOR
EXPERIMENTAL AND CONTROL GROUPS

Group	N	Pre Mean	Post Mean
Control	20	119.0	106.0
1	20	114.0	94.0
2	20	108.5	100.5
3	19	112.0	80.5**
4	19	110.0	78.0**
5	17	97.0	84.5**
6	20	110.5	87.5**

*The lower mean scores indicate higher speech proficiency.
**Significantly different from the corresponding mean at the .01 level.

TABLE 31

MEAN COMPARISONS OF PRE-POST INTELLIGIBILITY SCORES FOR
EXPERIMENTAL AND CONTROL GROUPS

Group	N	Pre Mean	Post Mean
Control	20	339.5	372.0
1	20	350.0	395.0
2	20	311.0	349.5
3	19	314.5	369.0
4	19	331.0	365.0
5	17	261.5	261.0
6	20	316.0	364.5*

*Significantly different from the corresponding mean at the .01 level.

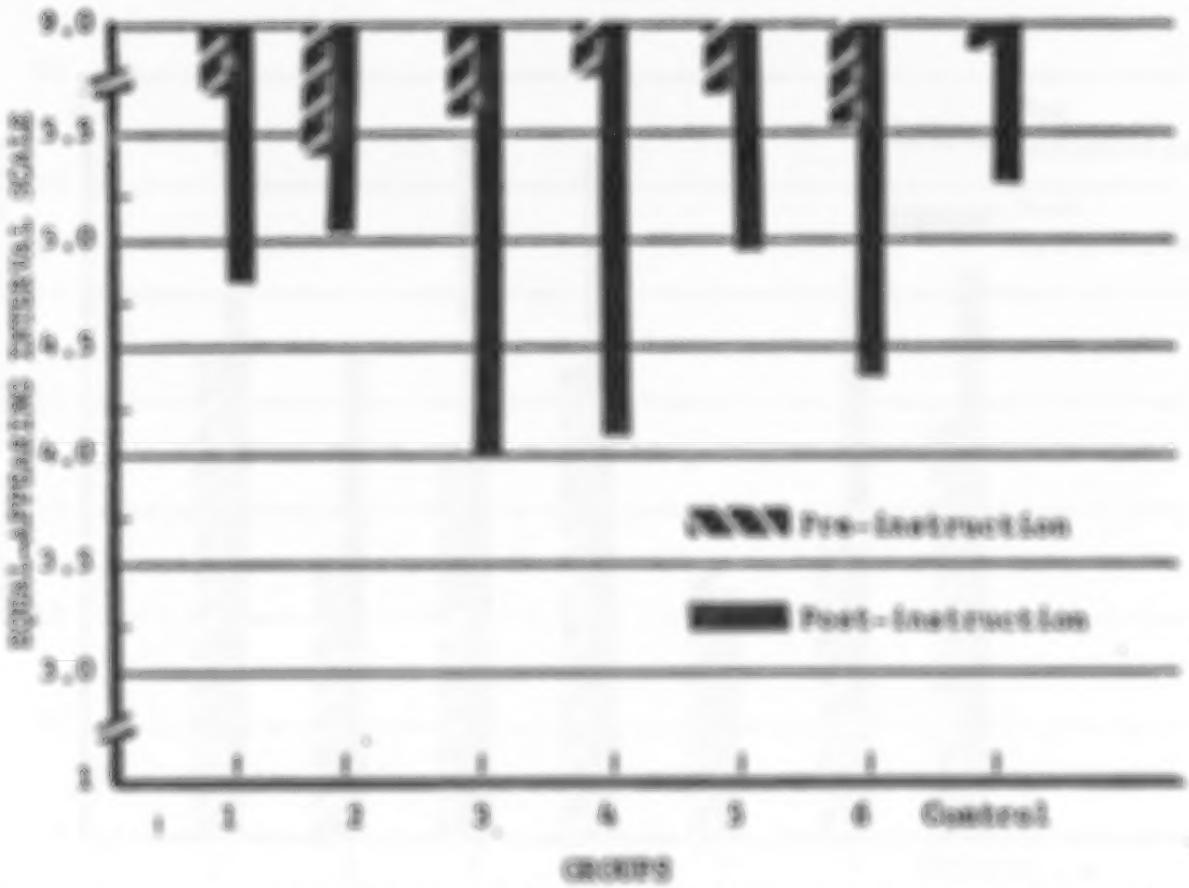

Fig. 4. Mean speech ratings of groups before and after instruction. Based on a scale from 1 (very satisfactory) to 9 (very unsatisfactory).

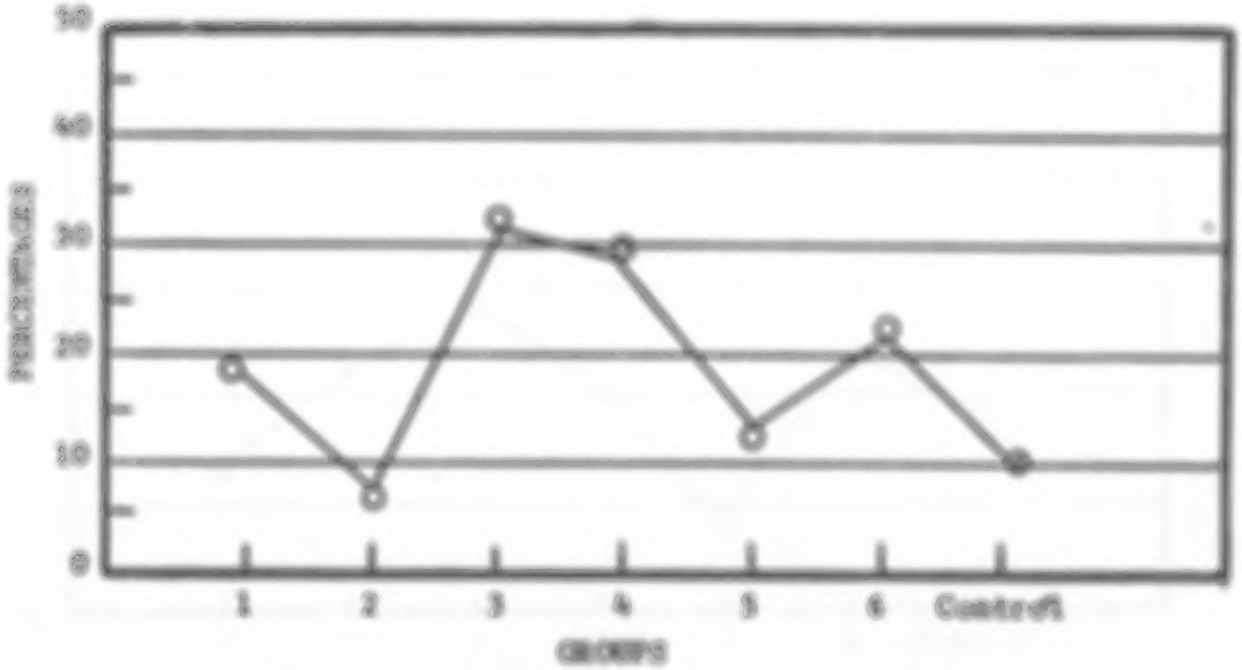

Fig. 5. Percentage analysis of speech improvement by groups.

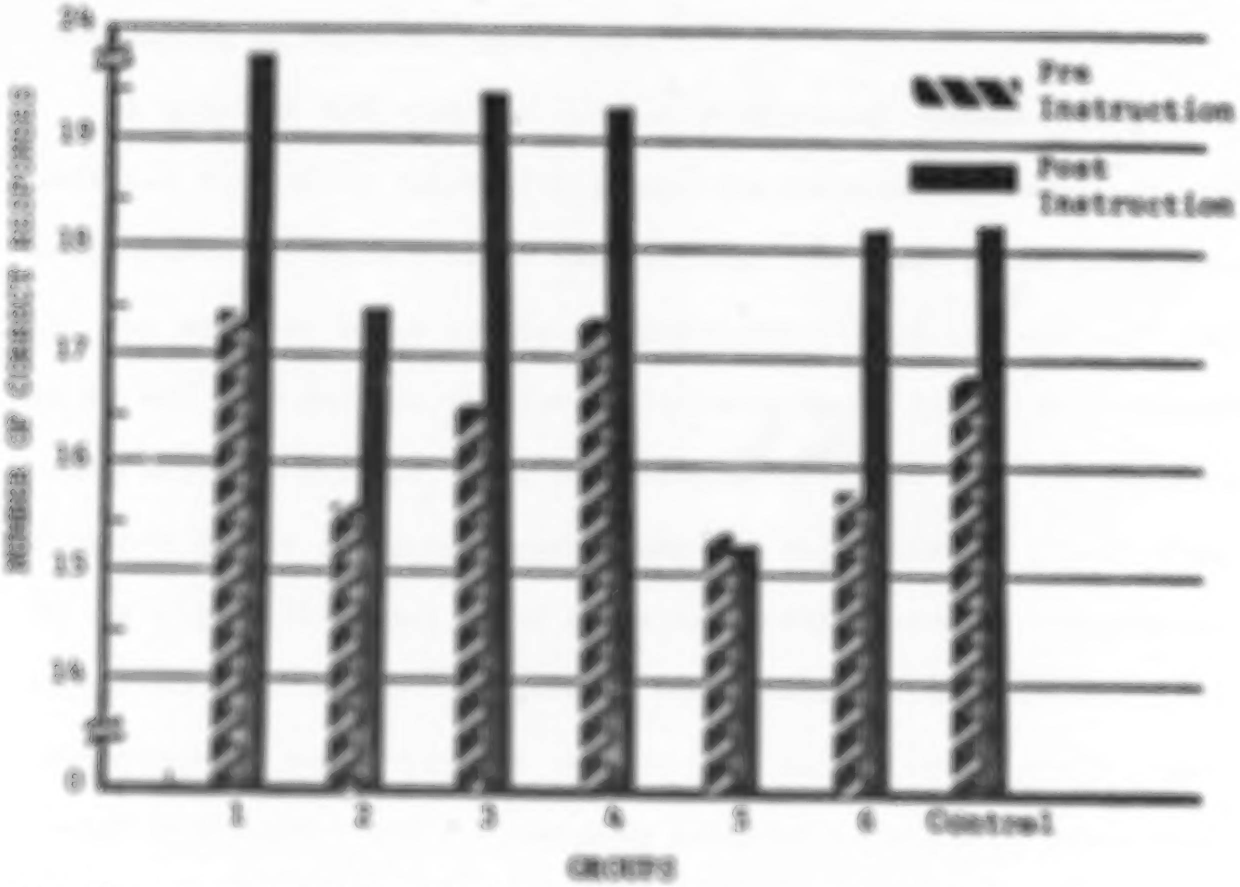

Fig. 6. Mean intelligibility scores of groups before and after instruction. Based on a possibility of 24 correct responses.

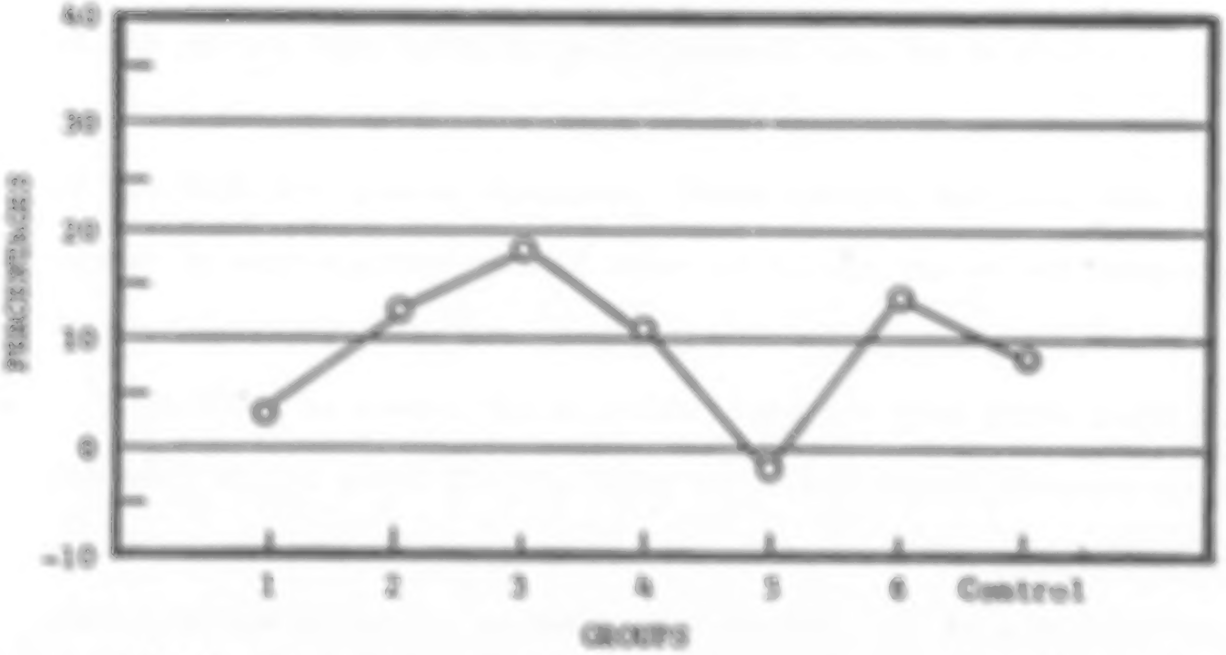

Fig. 7. Percentage analysis of improvement in intelligibility by groups.

Comparisons of Academic Achievement

A total of 104 high and 104 low proficiency speakers were randomly selected from their respective groups for purposes of comparing academic achievement before and after remediation. The mean grade point average for the semester prior to the instructional period for the high proficiency group was 2.14 and for the low proficiency group 1.68. This difference, significant at the .01 level of confidence, showed that the academic performance of the low proficiency group was significantly poorer than that of the high proficiency group prior to participation in the program. The significant difference in academic performance between speaker groups substantiated the assumption serving as a basis for the study, namely that speech proficiency bears a positive relation to academic achievement.

In order to assess further the relation between speech proficiency and academic achievement, the grade point averages of the two groups were again compared after completion of the instructional program. At the end of the period, the academic performance of the low proficiency speakers based on the cumulative averages was not significantly poorer than that of the high proficiency speakers. These results indicate that positive change in academic performance occurred during the second semester for all of the low proficiency speech groups which received assistance.

In order to assess the relative change in mean grade point average for each of the seven groups, their first and second semester scores were compared. The findings indicate that all of the remedial procedures had some positive effect on academic performance, and as a further implication, that the more extensive and inclusive the treatment or remedial procedures, the greater the academic improvement which can be anticipated.

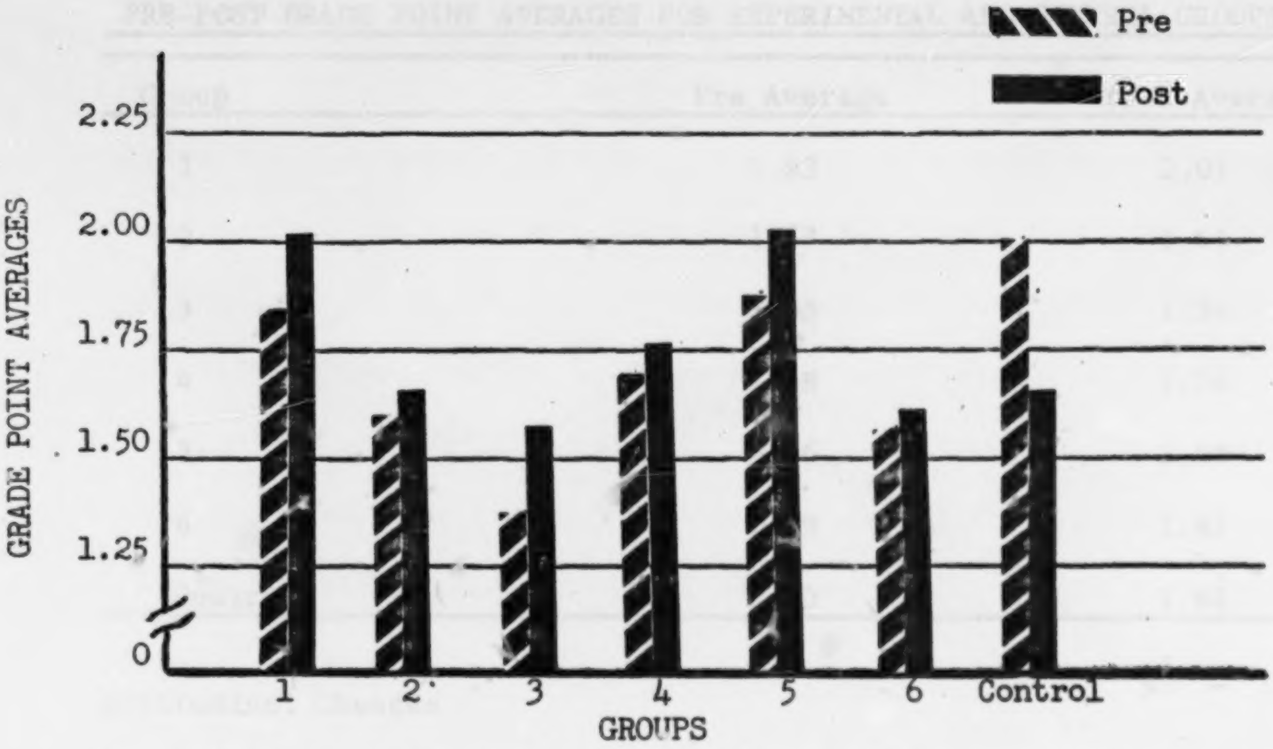

Fig. 8. Grade point averages (out of a possible 4 points) for the groups before and after instruction.

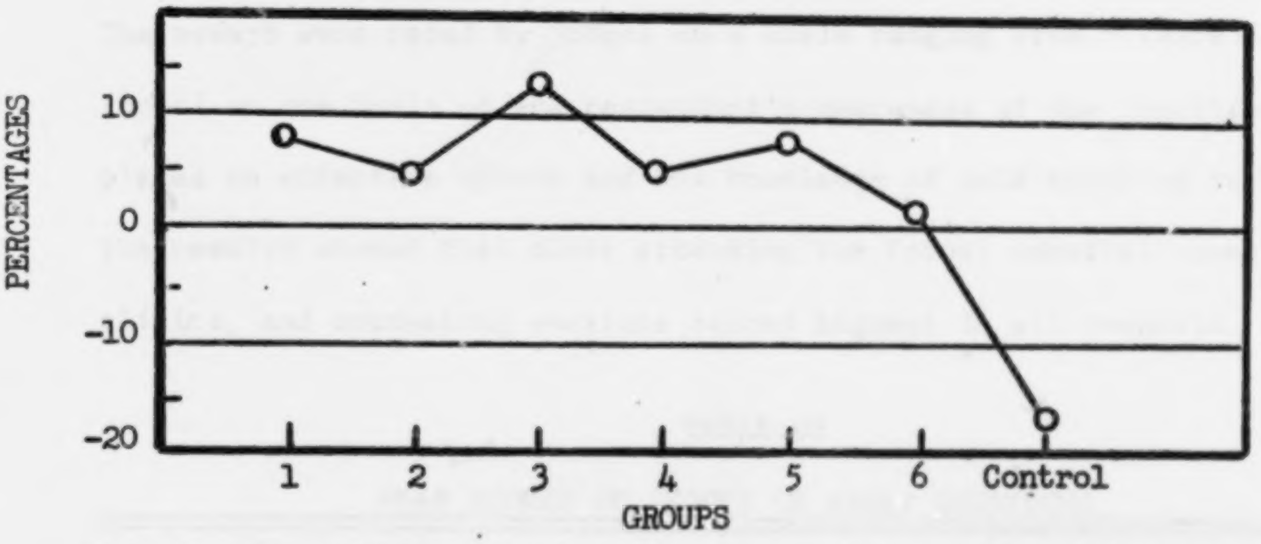

Fig. 9. Percentage analysis of improvement in grade point averages.

Grade point average comparisons before and after instruction and a percentage analysis of improvement for all groups are illustrated in Figures 8 and 9, respectively.

TABLE 32

PRE-POST GRADE POINT AVERAGES FOR EXPERIMENTAL AND CONTROL GROUPS*

Group	Pre Average	Post Average
1	1.83	2.01
2	1.57	1.66
3	1.35	1.54
4	1.68	1.76
5	1.86	2.04
6	1.59	1.62
Control	2.00	1.66

Attitudinal Changes

The experimental and control subjects were also required to write short essays on the social importance of speech and techniques for self-improvement. The essays were rated by judges on a scale ranging from 5 (excellent) to 1 (poor) on the basis of the respondent's awareness of the importance society places on effective speech and his knowledge of self-teaching techniques. The results showed that those attending the formal remedial speech classes, clinics, and counseling sessions scored highest in all respects. (Table 33).

TABLE 33

MEAN SCORES OF GROUPS ON ESSAY QUESTIONS

Group	Question 1	Question 2
Class	8.40	7.10
Clinic	5.10	5.90
Control	5.80	6.75

*Grade point averages are computed on the basis of a 4 point scale.

Personal Rating Efficiency

As another test of the side effects of remedial instruction, the groups listened to and rated ten randomly selected recordings of good and poor speech samples by other subjects using the nine-point equal appearing interval scale method. All subjects were instructed to use their own standards of satisfactory and unsatisfactory speech as criteria for rating the samples. The subjects were further asked to write brief comments to show the basis for each rating. An analysis of variance performed on the speech proficiency ratings showed no significant differences among the groups in their ability to rate the proficiency of speech samples. However, the group receiving the full range of treatments was able more often than the others to state acceptable reasons for assigning the ratings. These findings emphasis again the extra benefits to be gained from participation in the comprehensive program resulting from a battary approach.

TABLE 34

ANALYSIS OF VARIANCE OF THREE EXPERIMENTAL GROUPS' RATINGS OF SPEECH SAMPLES

Source of Variation	Sum of Squares	df	Mean Square	F
Between Groups	150.8650	2	75.4325	N.S.
Within Groups	12,796.6000	27	739.4814	
Total	12,947.4650	29		

Effects on Personality

Because of the relationship demonstrated earlier between speech proficiency and personality characteristics, it was desirable to ascertain whether any change in personality had occurred during the course of the remedial program. It was also desirable to ascertain whether any particular aspects of the remedial program were more effective in promoting such change. The California Psychological Inventory, therefore, was readministered to all experimental groups and to the control group. The CPI was chosen because it had more significantly differentiated speaker groups in the initial phase of the study and was designed to measure aspects of personality in social interaction situations. Emphasis on speech behavior in social situations was implicit throughout the remedial program.

Mean cluster scores for classes of variables on the CPI were obtained for each of the seven groups. The mean cluster score represents the mean score for the group across all of the variables comprising each of the four broad classes of the CPI: I: Poise, Ascendancy, and Self Assurance; II: Socialization, Maturity, and Responsibility; III: Achievement Potential and Intellectual Efficiency; and IV: Intellectual and Interest Modes. Comparisons among the groups were performed by means of t-tests. Statistically significant differences were obtained in Class II, which measured Socialization, Maturity and Responsibility.

TABLE 35

COMPARISON OF POST CPI GROUP MEANS FOR EXPERIMENTAL AND CONTROL GROUPS

Groups	Class I.	Class II.	Class III.	Class IV.
Control	27.25	26.66	28.24	13.82
Group 1	27.70	27.58*	28.77	13.22
Group 2	25.83	27.16*	27.10	12.77
Group 3	26.87	26.82	26.72	13.30
Group 4	26.10	26.10	26.18	12.63
Group 5	25.71	25.12*	25.94	13.09
Group 6	27.25	26.95	26.00	12.86

*Group 5 significantly different from Groups I and II at the .05 level.

Conclusions

Psychological Components

The first hypothesis tested, that students evaluated as poor speakers differ from students evaluated as good speakers in emotional tolerance level, anxiety level, indices of social adjustment (personality), and attitudes toward speech standards and remedial programs, was upheld.

Very significant personality differences were revealed when high and low proficiency speakers were compared across three psychological tests. The high proficiency group was characterized by greater degrees of such attributes as dominance, self-confidence, independence, spontaneity, persistence, and flexibility. These attributes are related to the areas of emotional tolerance, personal adequacy, and social adjustment. According to these results, the high proficiency speakers are more fully equipped to function in social situations, to assume leadership roles, to achieve academic success, and to function successfully in interpersonal relationships. Moreover, the differences manifested between speaker groups were such that the proficient as compared with the non-proficient speakers, seem to possess a personality structure more similar to that of the white middle-class group on which the tests were standardized. This may be indicative of a greater tendency to internalize the behavior patterns associated with and valued by the white middle-class population of America. The social stereotype of desirable and non-desirable characteristics in any culture is affected by the prevalent behavior patterns of its members, and vice versa. The personality profile of the non-proficient speakers exhibited many of those qualities often associated with such as the Negro stereotype.

The aforegoing observations necessitate consideration of the complexity of the relation between speech proficiency and its psychological correlates. One might suspect that speech proficiency is not only related to personality structure, but may be considered as being inextricably linked with questions of group conformity and group identification. These results are important for programs which seek to effect change in speech and language proficiency through remediation procedures. We can state arbitrarily that positive attitudes and awareness are prerequisite to change. The aware student who is convinced of the need should be considerably more successful in effecting a change in his own speech behavior. In other words, change must be self-motivated and is incumbent upon remedial programs to instill within students a stronger desire to effect this change. Surely, consideration of the psychological concomitants of speech and language behavior will add immeasurably to the achievement of this end.

The Battery Approach

The second hypothesis, concerned with the efficacy of a battery of diagnostic procedures in identifying the major components of dialectolalia, including undesirable psychological variables, was also upheld.

The diagnostic battery used in the present research provided a welter of psychological, socio-economic, cultural, and attitudinal data related to speech proficiency. These findings not only revealed a more comprehensive picture of the totality of factors bearing on the condition, but permitted development of an interrelated series of remedial procedures involving an interdisciplinary approach, where the need for such was indicated.

In yielding evidence of a complex interrelationship between speech proficiency, socio-economic level, and personality characteristics, the use of a test battery in this study emphasizes the necessity for considering speech behavior in relation to its causes, effects, and correlates before attempting remediation. Concentration on isolated variables observable through more superficial analysis will yield dubious results. Speech behavior does not develop in isolation, but is linked with psychological development. Furthermore, speech is a learned behavior, induced and conditioned by the environment. The environment provides the models and the opportunities for language learning, but more specifically, for the learning of the kind of language which is deemed important within the particular social context. By means of the learning process, the individual is provided with the basic oral and emotional equipment he will need subsequently to achieve proficient communication skills. When this fails, or does not permit competence in the style prevalent in the mainstream of social and economic life, there results the problem of deviant patterns of oral English usage or dialectolalia.

Innovative Remediation

On the basis of the findings from the experiment the third hypothesis concerned with remedial instruction which supplements the conventional approach for improving speech with a plan of remediation providing for attention to the full constellation of correlates, was also accepted. Moreover, it was shown that significant attitudinal and behavioral changes were evidenced as a function of the remedial program suggested by the battery approach. The findings are suggestive of the greater efficiency of the supplemented remedial approach.

In general, it would appear that the procedures used with Group 6 (speech clinic and laboratory, speech classes, and group guidance counseling) accomplished their goals. The inclusion of the speech clinic in the program provided the students with the opportunity for specific therapy. Continued opportunities were afforded them for practice in the laboratory. Students attending the experimental classes demonstrated an increased awareness of speech problems in general, and empirically demonstrated greater improvement in their own speech proficiency.

The remedial speech classes emphasized speech and language behavior within a social context. The interpersonal aspect was stressed in view of the demonstrated relationship betweeen speech and its psychological correlates. Toward this end, students were acquainted with speech standards, provided with numerous opportunities for practice in speaking and listening, and given direction and therapy. The underlying goal was to motivate the students such that they would endeavor to effect change in their own speech and language behavior. Students participating in these classes improved their speech proficiency and intelligibility, and demonstrated increased awareness of the importance of good speech. They also exhibited an improved ability to articulate, i.e., became more intelligible.

The primary aim of the group guidance counseling was to offer students assistance with their problems of academic and college adjustment. By providing students with the opportunities for group discussion and verbal interaction, the guidance sessions helped to focus attention on the importance of speech and language behavior, and provided some of the motivation necessary to effect such change through participation in classes and clinical programs. Students participating in these sessions improved their own speech proficiency and demonstrated a greater awareness of speech standards.

Significant changes in basic attitudes toward remediation and increased receptivity were noted by the clinical psychologist in the interviews with students conducted in the latter stages of the program. Most students expressed an increased willingness and desire to practice and improve.

When evaluating the efficacy of the remedial program, it should be remembered that 10 weeks is a relatively short period of time in which to expect drastic and permanent changes in personality, behavior, and attitudes. That change did occur in proficiency, intelligibility, attitudes, and receptivity emphasizes the effectiveness of the program. The complexity of the relation between speech proficiency and its psychological correlates remains a challenge. The present findings are a beginning in the development of a comprehensive and efficacious remedial speech program. This is an area of investigation demanding additional research and innovation. Hopefully, the present study has provided insights and information which may serve as a baseline for more extensive investigations at a variety of levels.

Recommendations for Further Research

The findings reported in this paper point up several very critical issues. First, there is need for a more wieldy series of screening devices. Ideally, the instrument developed to meet this need would be a single unit consisting of subdivisions for audiometric testing, speech evaluation and classification, psychological profiles, socio-economic variables, and attitudinal variables. Included also would be provision for proficiency indices to show the subject's relative speech and language skill levels at the time of diagnosis and at varying stages of the treatment period. Funds are being requested from the U.S. Office of Education to undertake this project as one phase of the continuation of the present research.

Secondly, the implication of this study for vastly improved instructional programs should be tested on a large scale basis. This could be done through a demonstration program utilizing the complete range of innovative activities suggested by these results. Such a program would include mass testing, evaluation, classification, and placement of a large group of subjects. It would demonstrate how a composite of data can be used by the integrated assets of a modern university to cope successfully with the speech and language problems of its students. It might be well as part of such a program to show how the University services can be used advantageously to service the needs of other non-collegiate elements in the community. Coordinated as part of the program would be services for dropouts, adults of all ages, miscellaneous Poverty Program activities, and certain school programs, especially those for the culturally different youth. A pilot effort in these directions has already been instituted.

Finally, we need to learn more about the nature of the problem. It is necessary, therefore, to make further linguistic analysis with a view toward creating new therapy techniques and remedial procedures.

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Appendix A

My Grandfather Passage

My name is ______________________________

I go to school at the ______________________________

My Grandfather

You wished to know about my grandfather. Well, he is nearly ninety-three years old; he dresses himself in an ancient, black frockcoat, usually minus several buttons; yet, he still thinks as swiftly as ever. A long flowing beard clings to his chin, giving those who observe him a pronounced feeling of the utmost respect. When he speaks, his voice is just a bit cracked and quivers a trifle. Twice each day he plays skillfully and with zest upon our small organ. Except in the winter when the ooze or snow or ice prevents, he slowly takes a short walk in the open air each day. We have often urged him to walk more and smoke less, but he always answers, "Banana Oil!" Grandfather likes to be modern in his language.

My life ambition is ______________________

Appendix B

Multiple-Choice Intelligibility Test Lists

I am Speaker Number _____. I say again. I am Speaker Number _____.

My name is (give your name)____________, (spell your last name)_______.

#1 warm campus port
#2 air-corps dark pastel
#3 fruit quicker beam
#4 legend blunder torn
#5 dread near hearten
#6 certain extort file
#7 raid fitting hall
#8 knuckle rest street

#1 hid food twin
#2 domain pin reprieve
#3 heart passing anchor
#4 yoke chat sitting
#5 cord ballot drag
#6 flanking borrow uphold
#7 type beat pray
#8 grip confer verse

#1 seed construed terrain
#2 virtual fire cot
#3 thinner entry roamer
#4 beer gull settle
#5 vault burst trace
#6 track hurdle draft
#7 grow late rake
#8 shame pin harsh

#1 garden ball stubble
#2 prop tool porridge
#3 hate resolve beetle
#4 table reply folly
#5 shave effect hard
#6 rain wad cramp
#7 plant list revolt
#8 gory such horse

#1 brook pair apple
#2 brink skim smashing
#3 took oboe frail
#4 claim word relieve
#5 clock fine reaping
#6 dainty proof twist
#7 would candy dodge
#8 assist revert bucket

#1 turn take commence
#2 prod wake feeding
#3 reflect log robber
#4 held advice blast
#5 playful fruit detain
#6 ruler nude stave
#7 egg blinding tint
#8 deck boat jump

I am Speaker Number _____. I say again, I am Speaker Number _____.

My name is (give your name) _______, (spell your last name) _______.

#1 cheerful barn green
#2 ford steel lotion
#3 birth harbor pipe
#4 side shingle blood
#5 pond seed sail
#6 heat pass depth
#7 wide locket feet
#8 content force ax

#1 jagged wise built
#2 fancy tower spit
#3 addict fade prescribe
#4 tackle field hair
#5 rink object clad
#6 teller band simple
#7 dungeon barred captor
#8 whelp resent forebode

#1 injure come absurd
#2 beacon turret bedside
#3 careful starch found
#4 grove pretty molar
#5 carve deluxe cried
#6 like headache dump
#7 shift pitch spitfire
#8 pool cold motor

#1 regent comfort flame
#2 consume camel swat
#3 train chatter hornet
#4 cue freezing distrust
#5 challenge nook basket
#6 darn planting rough
#7 sender let box
#8 deceit come beat

#1 pay bribe twitch
#2 roam bash defrayed
#3 square drowned contest
#4 bat cautious sour
#5 recur feel oath
#6 blare adore okayed
#7 ballad fraud around
#8 self outside bud

#1 grief refine dear
#2 rate please tension
#3 court man bureau
#4 three wind here
#5 bead appraise crave
#6 scare guest bent
#7 devote gain leader
#8 unsold could foreman

I am Speaker Number _____. I say again, I am Speaker Number _____.

My name is (give your name) , (spell your last name) .

#1 piston term manner
#2 heave detain stream
#3 rupture tour medal
#4 heart spotter gang
#5 comment detract fade
#6 lumber cave fierce
#7 dale slimmer wart
#8 major enact hold

#1 muddle tarred offer
#2 porch fable claw
#3 season tumble prone
#4 take rupture eye
#5 profess glow sprinkle
#6 devise friction baker
#7 lease second rich
#8 crater seaport joy

#1 tramping woolen twin
#2 pan pope pelvis
#3 pain remote axe
#4 mad descend alright
#5 formal unpack liken
#6 sprocket bind confuse
#7 order kick running
#8 flock bone rind

#1 fender big whip
#2 why message shock
#3 mat pull absurd
#4 paste lisp contract
#5 concurred dusk grope
#6 grange concrete spade
#7 combine booth quite
#8 table rake discard

#1 ear cone foreign
#2 total glad vivid
#3 oboe shop cough
#4 tact bridal far
#5 blimp bond complied
#6 sight saloon mop
#7 fork damp tyrant
#8 best relief hold

#1 flash fox flag
#2 attract favor plume
#3 flap wink bid
#4 claws yes southeast
#5 strop harass lever
#6 cork hall baby
#7 bandage grasp chatter
#8 were plane meaning

I am Speaker Number _____. I say again, I am Speaker Number _____.

My name is (give your name) __________, (spell your last name) __.

#1 free precious ode
#2 salmon first unite
#3 wrap bold choose
#4 fence anvil heart
#5 tennis dot lunge
#6 farm light grade
#7 back throat hit
#8 here date ousting

#1 french prepay fifth
#2 rabid attempt field
#3 coke firmer perceive
#4 thunder quake warn
#5 curve simple dead
#6 ease hood disperse
#7 attire suit help
#8 germ away decide

#1 call scandal baker
#2 dud wallop lead
#3 root bail past
#4 this fitting dolly
#5 reclaim hunter bat
#6 general fluid gun
#7 quake cabin astute
#8 supper clown rim

#1 spot fry stealing
#2 chore creak woe
#3 frontal snap lower
#4 shape anger prop
#5 known intense drove
#6 boarding stuck aren't
#7 end kettle fault
#8 bailing shelve bent

#1 soft thrash furnish
#2 moment fried gloom
#3 dipper gorge high
#4 thick matter have
#5 common and cone
#6 must packing brunt
#7 great punt propel
#8 starch build act

#1 greater few beer
#2 dream fan fever
#3 ten fun reprieve
#4 captain valid dry
#5 instant brad healthful
#6 weak thrill mealtime
#7 drastic dial weighed
#8 trick rent rob

I am Speaker Number _____. I say again, I am Speaker Number _____.

My name is (give your name)__________, (spell your last name)____.

#1 piston firm banner
#2 eve attain scream
#3 rupture tour medal
#4 ark spotter gain
#5 cannon detract made
#6 lumber case pierce
#7 jail glimmer ward
#8 nature enact old

#1 muzzle carve author
#2 scorch able cloth
#3 vision fumble groan
#4 cape lecture high
#5 possess blow single
#6 divide friction maker
#7 leaf section rich
#8 traitor eastward join

#1 traffic woolen swim
#2 can pulp eldest
#3 tank promote apt
#4 bad defend slight
#5 formal unpack license
#6 socket find misuse
#7 quarter kit rummage
#8 lock bold grind

#1 tender beg swift
#2 wise nothing shark
#3 map full observe
#4 pace list constrast
#5 unheard just grow
#6 range hungry fade
#7 confine boast white
#8 navam race discard

#1 year prone forest
#2 stable blast visit
#3 oval shock cost
#4 tack vital mar
#5 glimpse bomb untied
#6 dike salute mock
#7 fort dance pirate
#8 nest release cold

#1 splash clock lag
#2 attack flavor gloom
#3 clap week this
#4 pause yet southeast
#5 drop arrest leather
#6 court fall navy
#7 bandit vast shatter
#8 word blame needy

I am Speaker Number _____. I say again, I am Speaker Number _____.

My name is (give your name), (spell your last name).

#1 tree pressure own
#2 cannon surf tonight
#3 ramp mold choose
#4 bench cancel arch
#5 senate got plunge
#6 harm flight drain
#7 fact throat it
#8 air gate outing

#1 trench repay stiff
#2 rabbit exempt shield
#3 coach former preside
#4 blunder quaint worm
#5 purr dental bed
#6 keys good disturb
#7 aspire chute help
#8 germ await seaside

#1 call handle vacant
#2 dust wallet leave
#3 fruit bail pants
#4 dish sitting jolly
#5 replace hunter bath
#6 journal fluid none
#7 plate cabin acute
#8 suffer clown grin

#1 rock try ceiling
#2 drawer creep wool
#3 funnel nap lure
#4 shake hanger crop
#5 zone intend throw
#6 morning duck art
#7 inn kennel false
#8 belly shell bin

#1 salt crash furnace
#2 moment ride broom
#3 clipper door tie
#4 sink matter half
#5 carbon end tone
#6 us passage front
#7 rate punch hotel
#8 dart bill at

#1 raider view fear
#2 screen man beaver
#3 tense gun achieve
#4 captain salad drive
#5 instance brass helpful
#6 sweep drill meantime
#7 grasping file wave
#8 click wrench throb

I am Speaker Number _____. I say again, I am Speaker Number _____.

My name is (give your name) _____, (spell your last name) _____.

#1 chisel bond dream
#2 forge seal notion
#3 verse harvest tight
#4 guide jungle blunt
#5 pun speed hail
#6 eat pad depth
#7 wife rocket keep
#8 content fork ask

#1 gadget why belt
#2 sandy power fit
#3 attic main describe
#4 cattle heel tare
#5 ring option class
#6 killer span thimble
#7 dozen guard chapter
#8 wealth prevent foremost

#1 endure calm absent
#2 bacon perfect decide
#3 fearful start gown
#4 drove thirty roller
#5 barge select pride
#6 light heading jump
#7 gift catch misfire
#8 fuel toe odor

#1 recent confront lame
#2 perfume bumble what
#3 frame scatter harness
#4 you treason disgust
#5 talent cook musket
#6 gone plenty rub
#7 center less fox
#8 defeat some beach

#1 play bright which
#2 robe dash enrage
#3 swear ground confess
#4 fast caution shower
#5 prefer keel hope
#6 flare endorse locate
#7 ballot rod abound
#8 health outline thud

#1 brief define near
#2 raid sneeze pension
#3 corpse mad zero
#4 tree when air
#5 been afraid crane
#6 share guess fence
#7 demote pain ladder
#8 untold hood torment

I am Speaker Number _____. I say again, I am Speaker Number _____.

My name is (give your name), (spell your last name).

#1 swarm canvas quart
#2 airport bark tassel
#3 group flicker beef
#4 legion wonder horn
#5 threat deer garden
#6 curtain export final
#7 rage city all
#8 knuckle dress screech

#1 skid mood twist
#2 profane thin receive
#3 hard fasten anger
#4 joke shaft knitting
#5 course balance rank
#6 lanky horror unfold
#7 pipe beast spray
#8 drift concern first

#1 feed conclude train
#2 virtue hire patch
#3 dinner envy rumor
#4 spear goal mettle
#5 fault birch praise
#6 slack kernel drab
#7 go lady break
#8 chain ten heart

#1 pardon hall double
#2 top cruel storage
#3 eight dissolve needle
#4 fable recline volley
#5 shade infect card
#6 brain squad tramp
#7 plan lift behold
#8 glory nut force

#1 crook fair amble
#2 brick dim matching
#3 shook opal trail
#4 flame were relief
#5 plot kind sleeping
#6 eight swoop quit
#7 world handy dot
#8 unfit reverse budget

#1 term hate commit
#2 proud waist meaning
#3 deflect law jobber
#4 tell invite flat
#5 faithful suit became
#6 rural noon save
#7 edge binding prince
#8 desk vote young

Appendix C

Socio-Economic Assessment Inventory

Code Forms for Socio-Economic Assessment Inventory

COMMUNICATION SCIENCES RESEARCH CENTER

SOCIO-ECONOMIC ASSESSMENT INVENTORY

Identification Data

1. Name: ______________________________ I. D. NO. ______________

2. Age: _____ Place of birth: ______________________________
City State

3. Sex: Male ☐ Female ☐

4. Marital Status: ☐ Single ☐ Separated
☐ Married ☐ Divorced

A. If married, how long? ________________________.

5. Enrolled in: ☐ Liberal Arts ☐ Fine Arts
☐ Pharmacy ☐ Engineering & Architecture

6. Major or Tentative Major: ______________________________

7. Is English your first language? ☐ Yes ☐ No

A. If your answer is "no" please write in the name of your native language. ______________________________

Family and Personal Background

8. Wh re was your father born? ______________________________
City State

9. Where was your mother born? ______________________________
City State

10. How many brothers do you have? ________

11. How many sisters do you have? ________

12. Ar you: ☐ An only child? ☐ Oldest child?
☐ Youngest child? ☐ Between the oldest and youngest child?

13. Is your mother living? ☐ Yes ☐ No

14. Is your father living? ☐ Yes ☐ No

15. Are your parents separated or divorced? ☐ Yes ☐ No

If "yes," how old were you when this occurred? ________________years.

16. Who did you live with until you came to college or got married?

☐ both natural parents
☐ mother only
☐ father only
☐ mother and stepfather
☐ father and stepmother
☐ other relatives
☐ guardians

17. Have you ever lived with anyone other than your natural parent (s) for a period of time to exceed that of a summer vacation?

☐ yes ☐ no

A. If "yes" please indicate (1) how often ____________________
(2) how long at each:

18. What is the highest level of education completed by each of the following people in your family: (write in the appropriate number)

A. Father _____
B. Mother _____
C. Guardian(s) _____(male)
_____(female)
D. Sister(s) and/or Brothers
_____
_____
_____
_____

1. Completed one (1) or more years of graduate work at a college or university
2. Graduated from four (4) years of college or university or professional school.
3. Attended college two (2) or more years or equivalent higher education.
4. Graduated from high school or equivalent secondary education.
5. Attended high school; completed at least one year but did not graduate.
6. Third to eighth grade.
7. Below third grade.

19. What are the ages and occupations of the following:

	Age	Occupation
A. Father	____	____________________
Does he own the business? ____		
Is he self employed? __________		
What are his duties? ____		
B. Mother	____	____________________
C. Guardian(s)	____	____________________
D. Sister(s) and Brother(s)	____	____________________
	____	____________________
	____	____________________
	____	____________________

20. Are there relatives other than your immediate family living in your house?

☐ yes ☐ no

21. Are there non-relatives living in your home? ☐ Yes ☐ No

22. How would you describe the place where you live?

☐ Large House (9 rooms) in good condition with adequate grounds.

☐ Large House in medium condition

☐ Medium House (7 rooms) in good condition

☐ Best Apartments

☐ Medium house in medium condition

☐ Large apartment in well kept building

☐ Large or medium house in fair condition

☐ Apartments in Buildings in medium condition

☐ Small house (5 rooms) in good condition

☐ Good apartment in remodeled house

☐ Small house in medium or fair condition

☐ Apartment in fair condition

☐ House or apartment in bad condition

☐ Store front

☐ Dwelling not intended for homes

23. Consider the income received from various sources by members of your family, in your household. What would you estimate your family's income to be? (If you have been married more than two years give your approximate income). (Please check)

☐ Under $3,999

☐ $4,000 to $4,000

☐ $5,000 to $5,999

☐ $6,000 to $7,499

☐ $7,500 to $9,999

☐ $10,000 to $14,999

☐ $15,000 and above

24. Does your father (or guardian) have more than one job?

☐ Yes ☐ No

25. Does your mother (or guardian) work? ☐ Yes ☐ No

26. Does your family own:	Yes	No	
Home movie	___	___	
Telephone	___	___	
If so, how many?			
T.V.	___	___	___
Radio	___	___	___

27. Does a newspaper come to your home everyday? ☐ Yes ☐ No

If "yes" how many? ________

A. What types of magazines are read in the home?

☐ News and information

☐ Fashion

☐ Sports

☐ Technical

☐ Other (specify)

____

____

____

28. What are some of the activities participated in by members of your family as a group?

	Often	Seldom	Never
Celebration of birthdays			
Viewing T.V.			
Exchanging gifts			
Taking trips together			

29. If you do not live in the Washington Area, how often do you write home?

☐ Once a month ☐ Twice a month ☐ Once a week
☐ Every day ☐ When necessary

A. Is it usually because of financial or other kinds of emergencies?

30. Your college expenses are provided by which of the following sources this year?

	100%	50%	Less than 50%
Parent(s) or guardian(s)			
Other relatives			
Husband or wife			
Scholarship or Fellowship			
Own earnings			
Other personal funds			
Loans			

31. What types of books are read in your home?

☐ Educational: e.g. reference, professional, etc.
☐ Fictional e.g. novels
☐ Non-fiction: e.g. adventure, sports
☐ Literary e.g. drama, classics
☐ Religious

☐ Technical e.g. mechnaical

☐ Philosophical

32. What kinds of music were you exposed to in your home?

☐ Classical

☐ Semi-classical

☐ Religious

☐ Jazz

☐ Rock and Roll

☐ Other popular

☐ Other (specify)

33. Place a check beside any type awards you received while in high school.

☐ Scholastic or honorary i.e., outstanding student, valedictorian, science, etc.

☐ Citizenship

☐ Activities i.e., band, drama, talent, etc.

☐ Athletic

34. Did you hold any offices in your school groups? ☐ Yes ☐ No

☐ President

☐ Vice-President

☐ Secretary

☐ Treasurer

☐ Editor

☐ Group leader

35. Did you hold this office in

☐ Class

☐ Student Council

☐ Yearbook or newspaper

☐ Athletic Club

☐ Social Club

☐ Civic Club

☐ Scholastic or academic club

Community Data

36. How would you describe the community in which you were reared?

☐ Select residential area, highest esteem

☐ Better suburban and apartment house area

☐ Residential area with adequate space

☐ Residential area with no deterioration but of average esteem

☐ Area beginning to deteriorate because of business, industry, etc.

☐ Area considerably deteriorated but not a slum; depreciated esteem

☐ Neighborhood of poor esteem

37. Did you ever belong to any community clubs such as: Scouts, Cloverleaf Club, 4-H Club, Church Youth Groups? (list)

____

____

38. Does any member of your family belong to any of the following?

☐ Masons or Elks
☐ Eastern Star
☐ Professional Clubs
☐ P.T.A.
☐ Bridge Club
☐ Country Clubs
☐ Volunteer Auxiliaries
☐ Others (Specify) ______________

39. What are some of the jobs you have held in your community?

____

____

40. What cultural activities are available in your community?

☐ Theater (Stage plays)
☐ Museums
☐ Libraries
☐ Concerts
☐ Symphonies
☐ Operas
☐ Movies
☐ Other (Specify) ______________

41. Did your family attend any of the above activities outside your community when they were unavailable in your city or town?

☐ Yes ☐ No ; If "Yes"

A. Which ones (list) ______________ How often? ______________

______________ ______________

42. Which of the things mentioned above do you especially enjoy?

____

____

CODE SHEET FOR SOCIO-ECONOMIC ASSESSMENT FORM

CARD1 COLUMN	
1-2	Data Processing Use
3-8	Student I.D. Number (Write number)
9-35	Student Name (Last, First, Middle initial) Printed
36-37	Age
38-39	Place of Birth (Use code sheet for States)
40	Sex 1 Male 2 Female
41	Marital Status 1 Single 2 Married 3 Separated 4 Divorced
42-43	Length of Marriage 01 One year or less 02 Two years 03 Three years 04 Four years 05 Five years 06 Six years 07 Seven years 08 Eight years 09 More than 8 years 00 Does not apply
44-45	School in which enrolled LA Liberal Arts FA Fine Arts PH Pharmacy EA Engineering & Architecture
46-47	Major or Tentative Major (Use code sheet)
48	English as first language 1 Yes 2 No
49-50	If answer to 48 is "No" use code sheet for native language oo when answer to 48 is yes
51-52	Birthplace of Father (Use code sheet for States)
53-54	Birthplace of Mother (Use code sheet for States)

55 Number of Brothers
0 None
1 One
etc.
9 More than eight brothers

56 Number of Sisters
0 None
1 One
etc.
9 More than eight sisters

57 Student's position among siblings
1 Only child
2 Youngest child
3 Oldest child
4 Between the oldest and youngest child

58 Mother living
1 Yes
2 No

59 Father living
1 Yes
2 No

60 Parents Separated or Divorced
1 Yes
2 No

61-62 If answer to 60 is "Yes" what was student's age
01 One Year
02 Two Years
etc.
09 Nine years
10 Ten years
etc.
00 Does not apply

63 With whom did you live until you come to college or got married?
1 Both natural parents
2 Mother Only
3 Father Only
4 Mother and stepfather
5 Father and stepmother
6 Other relatives
7 Guardians
8 Lived Alone

64 Have you ever lived with anyone other than natural parents
1 Yes
2 No

65 If column 64 is "Yes" how often
  1 One year
  2 Two years
  etc.
  9 More than 8 years

66 How many years
  1 One year
  2 Two years
  etc.
  9 More than 8 years

67 Highest Level of education completed by father or stepfather
  1 Completed one or more years of graduate word at a college of university
  2 Graduated 4 year college or professional school
  3 Attended college 2 or more years or equivalent higher education
  4 Graduated high school or equivalent secondary school
  5 Attended high school; completed at least one year
  6 Third to eighth grade
  7 Below third grade
  0 Student didn't answer or indicated didn't know

68 Highest level of education completed by mother or stepmother
  (Use code above)

69 Highest level of education completed by male guardian
  (Use code above)

70 Highest level of education completed by female guardian
  (Use code above)

71 Highest level of education completed by one or oldest sister
  (Use code above)

72 Highest level of education completed by one or oldest brother
  (Use code above)

73-74 Age of father or stepfather
  (Indicate age)
  00 Didn't know

75-76 Occupation of father or stepfather
  (Use code sheet provided)
  00 Didn't know

77 Does father or stepfather own the business
  1 Yes
  2 No
  0 Don't know

78 Is father or stepfather self-employed
  1 Yes
  2 No
  0 Don't know

79-80 Age of mother or stepmother

CARD 2
COLUMN

1-2 Data Processing Use

3-8 Student I.D. Number

9-10 Occupation of mother or stepmother
(Use code sheet)
00 Don't know

11-12 Age of male guardian
00 Don't know or not applicable

13-14 Occupation of male guardian
00 Don't know or not applicable
(Use code sheet for occupation code)

15-16 Age of female guardian
00 Don't know or not applicable

17-18 Occupation of female guardian
00Don't know or not applicable
(Use code sheet for occupation code)

19-20 Age of oldest sister
00 Don't know or not applicable

21-22 Occupation of oldest sister
00 Don't know or not applicable
(Use code sheet for occupation code)

23-24 Age of oldest brother
00 Don't know or not applicable

25-26 Occupation of oldest brother
00 Don't know or not applicable
(use code sheet for occupation code)

27 Relatives other than immediate family living in home
1 Yes
2 No

28 Non-relatives living in home
1 Yes
2 No

29-30 Description of place where you live
- 00 No answer
- 01 Large house (9 rooms) in good condition with adequate grounds
- 02 Large house in medium condition
- 03 Medium house (7 rooms) in good condition
- 04 Best apartments
- 05 Medium house in medium condition
- 06 Large apartment in well kept building
- 07 Large or medium house in fair condition
- 08 Apartments in buildings in medium condition
- 09 Small house (5 rooms) in good condition
- 10 Good apartment in remodeled house
- 11 Small house in medium or fair condition
- 12 Apartment in fair condition
- 13 House or apartment in bad condition
- 14 Store front
- 15 Dwelling not intended for home

31 Family income
- 1 Under $3,999
- 2 $4,000 to $4,999
- 3 $5,000 to $5,999
- 4 $6,000 to $7,499
- 5 $7,500 to $9,999
- 6 $10,000 to $14,999
- 7 $15,000 to $14,999
- 0 No answer or don't know

32 Does father or guardian have more than one job
- 1 Yes
- 2 No
- 0 Don't know or not applicable

33 Does nother or guardian work
- 1 Yes
- 2 No
- 0 Don't know or not applicable

34 Does family own home movie
- 1 Yes
- 2 No
- 0 No answer

35 Does family have telephone
- 1 Yes
- 2 No
- 0 No answer

36 How many telephones including extensions
(If answer to above is "Yes" indicate number)
- 1 One
- etc.
- 9 More than 8

37 Does family have television
1 Yes
2 No
0 No answer

38 If yes to above, indicate how many
1 One
etc.
9 More than 8 televisions

39 Does family have radio
1 Yes
2 No
0 No answer

40 How many radios, if answer to above is "Yes"
1 One
etc.
9 More than 8 radios

41 Does family have automobile
1 Yes
2 No
0 No answer

42 If answer to above is "Yes" indicate how many automobiles
1 One
etc.

43 Does newspaper come to your home everyday
1 Yes
2 No
0 No answer

44 If answer to above is "Yes", indicate how many
1 One
etc.

45 Magazines read in the home
1 News and information
2 Fashion
3 Sports
4 Technical
5 Other
6 Variety
0 No answer

46 Family celebration of birthdays
1 Often
2 Seldom
3 Never

47 Family viewing of television
1 Often
2 Seldom
3 Never

48 Family exchanging of gifts
1 Often
2 Seldom
3 Never

49 Family taking trips together
1 Often
2 Seldom
3 Never

50 If student does not live in Wash., D. C. area, how often does write home
0 Lives in D. C. Area
1 Once a month
2 Twice a month
3 Once a week
4 Everyday
5 when necessary

51 Write because of financial or other kinds of emergencies
0 Not applicable D. C. area
1 Yes
2 No

52 Parents or guardians as source of college expenses
1 100%
2 50%
3 Less than 50%
4 More than 50% but less than 100%
0 None

53 Other relatives as source of college expenses
1 100 %
2 50%
3 Less than 50%
4 More than 50% but less than 100%
0 None

54 Husband or wife as source of college expenses
1 100%
2 50%
3 Less than 50%
4 More than 50% but less than 100%
0 None

55 Scholarship or Fellowship as source of college expenses
1 100 %
2 50%
3 Less than 50%
4 More then 50% but less than 100%
0 None

56 Own earnings as source of college expenses
- 1 100%
- 2 50%
- 3 Less than 50%
- 4 More than 50% but less than 100%
- 0 None

57 Other personal funds as source of college expenses
- 1 100%
- 2 50%
- 3 Less than 50%
- 4 More than 50% but less than 100%
- 0 None

58 Loans as source of college expenses
- 1 100%
- 2 50%
- 3 Less than 50%
- 4 More than 50% but less than 100%
- 0 None

59 Types of books read in the home
- 1 Educational
- 2 Fictional
- 3 Non-fiction
- 4 Literary
- 5 Religious
- 6 Techical
- 7 Philosophical
- 8 Variety

60 Kinds of music in your home
- 1 Classical
- 2 Semi-classical
- 3 Religious
- 4 Jazz
- 5 Rock and Roll
- 6 Other popular
- 7 Other
- 8 Variety

61 Type of awards received in high school
- 1 Scholastic
- 2 Citizenship
- 3 Activities
- 4 Atheletic
- 5 More than one
- 0 None

62 Did you hold offices in school groups
- 1 Yes
- 2 No
- 0 No answer

63 Office student held
 1 President
 2 Vice-President
 3 Secretary
 4 Treasurer
 5 Editor
 6 Group leader
 7 Other
 8 Combination
 0 None

64 This office was held in
 1 Class
 2 Student council
 3 Yearbook or newspaper
 4 Athletic Club
 5 Social Club
 6 Civic club
 7 Scholastic or academic club
 8 Other
 9 Combination
 0 None

65 Description of community
 1 Select residential area
 2 Better suburban and apartment house area
 3 Residential area with adequate space
 4 Residential area with no deterioration but of average esteem
 5 Area beginning to deteriorate
 6 Area considerably deteriorated
 7 Neighborhood of poor esteem
 8 Rural area

66 Did you belong to community clubs
 1 Yes
 2 No

67 How many community clubs
 1 One
 etc.
 9 More than 8

68 Does any member of family belong to following clubs
 1 Yes
 2 No

69 How many of these groups
 1 One
 etc.
 9 More than 8

70 Did you hold any jobs in your community
 1 Yes
 2 No

71	Number of cultural activities available in community (Indicate number from 1-8; large cities at least 8)
72	Did family attend cultural activities outside when not available in community 1 Yes 2 No
73	Which cultural activities did you especially enjoy (Use first choice) 1 Theatre (Stage Plays) 2 Museums 3 Libraries 4 Concerts 5 Symphonies 6 Operas 7 Movies 8 Other 0 None or no answer
74	Item 1
75	Item 2
76	Item 3
77	Item 4
78	Item 5
79	Item 6
80	Item 7
CARD 3 COLUMN	
1-2	Data Processing Use
3-8	Student I.D. Number
9	Item 8
10	Item 9
11	Item 10
12	Item 11
13	Item 12

14	Item 13
15	Item 14
16	Item 15
17	Item 16
18	Item 17
19	Item 18
20	Item 19
21	Item 20
22	Item 21
23	Item 22
24	Item 23
25	Item 24
26	Item 25
27-29	Total score
30	How would you judge your own speech 1 Excellent 2 Very good 3 Fair 4 Poor 0 No answer
31	How would you judge speech of close friends 1 Excellent 2 Very good 3 Fair 4 Poor 0 No answer
32	How would you judge speech of parents 1 Excellent 2 Very good 3 Fair 4 Poor 0 No answer
33-36	Speech sample number (0001 to about 1250)
37	Speech rating 1 2 3

38	**Socio-economic Assessment Form class** **1** **2** **3**
39-41	**SCAT V Score**
42-44	**SCAT Q Score**
45-47	**SCAT Total Score**
48-50	**Reading Test Score**
51-52	**M.C.I.T. Score**
53	**Merit Rating Score**
54-55	**English Placement Test Scaled Score**
56-57	**Math Score**

OCCUPATIONAL CODE

01 Professionals
Accountants, auditors, actors, airplane pilots, architects, athletes, authors, clergymen, engineers, funeral directors and embalmers, lawyers and judges, librarians, musicians, natural scientists, nurses, pharmacists, physicians, social scientists, teachers, income tax assessors, surveyors, etc.

02 Farmers and farm managers
Owners and tenants, farm managers

03 Managers, officials and proprietors
Buyers, heads of departments in stores and businesses, railroad conductors, credit agency personnel, inspectors, building managers and superintendents, officials and administrators, postmasters, banking men, insurance men, real estate people, gasoline service station managers and owners, civil servants, etc.

04 Clerical and kindred workers
Bank tellers, bookkeepers, file clerks, postal clerks, messengers and office boys, shipping and receiving clerks, secretaries, stenographers, stock clerks, telephone operators, typists, mailmen, etc.

05 Sales workers
Sales clerks, real estate agents and brokers, newsboys, insurance agents,

06 Craftsmen, foreman and kindred workers
Bakers, bookbinders, carpenters, electricians, cranemen, engravers, glaziers, jewelers, job setters, mechanics and repairmen, plasterers, toolmakers, tailors, dressmakers, upholsterers, petty traders, etc.

07 Operatives and kindred workers
Apprentices to all craftsmen, bus drivers, deliverymen, meat cutters, laundry and dry cleaning operatives, packers and wrappers, sailors and deck hands, taxicab drivers and chauffeurs, manufacturing of durable goods like furniture, manufacturing of non-durable goods like food, clothes, etc., factory workers, etc.

08 Private household workers
Baby sitters, household workers, maids, butlers, etc.

09 Service workers
Barbers, hospital attendants, cooks, porters, practical nurses, protective services, (e.g. firemen, policemen, detectives) waiters, matrons, dieticians, etc.

10 Farm laborers and foremen
Wage workers, unpaid family workers, petty farmers, etc.

11 Laborers
Garage laborers, truck drivers, warehousemen, custodians, service station attendents, etc.

12 Unemployed
13 Housewife
14 Student
15 Armed Services Personnel
16 Retired or no occupation given
17 Pre-school
00 Don't know or not applicable (ie. deceased)

CODE FOR STATES AND MAJORS

Alabama	01	Architecture
Arizona	02	Biology
Arkansas	03	Botany
California	04	Business Administration
Colorado	05	Chemistry
Connecticut	06	Classics (Greek and Latin)
Delaware	07	Economics
District of Columbia	08	Education
Florida	09	Engineering, Civil
Georgia	10	Engineering, Electrical
Idaho	11	Engineering, Mechanical
Illinois	12	English
Indiana	13	Geology
Iowa	14	Geography
Kansas	15	German/Russian
Kentucky	16	Government (Political Science)
Louisiana	17	History
Maine	18	Home Economics
Maryland	19	Mathematics/ Astronomy
Massachusetts	20	Philosophy
Michigan	21	Physical Education
Minnesota	22	Physics
Mississippi	23	Psychology
Missouri	24	Romance Languages (French, Spanish, Italian)
Montana	25	Sociology/Anthropology
Nebraska	26	Zoology
Nevada	27	Fine Arts
New Hampshire	28	Art
New Jersey	29	Drama
New Mexico	30	Music
New York	31	Pharmacy
North Carolina	32	
North Dakota	33	
Ohio	34	
Oklahoma	35	
Oregon	36	
Pennsylvania	37	
Rhode Island	38	
South Carolina	39	
South Dakota	40	
Tennessee	41	
Texas	42	
Utah	43	
Vermont	44	
Virginia	45	
Washington	46	
West Virginia	47	
Wisconsin	48	
Wyoming	49	
Alaska	50	
Hawaii	51	
Foreign Country	52	

Card 1

1-2   3-8   9-35   36-37   38-39

40   41   42-43   44-45   46-47   48   49-50   51-52   53-54   55   56

57   58   59   60   61-62   63   64   65   66   67   68   69

70   71   72   73-74   75-76   77   78   79-80

Card 2

1-2   3-8   9-10   11-12   13-14   15-16   17-18   19-20   21-22

23-24   25-26   27   28   29-30   31   32   33   34   35   36   37

38   39   40   41   42   43   44   45   46   47   48   49   50   51

52   53   54   55   56   57   58   59   60   61   62   63   64   65

66   67   68   69   70   71   72   73   74   75   76   77   78   79

80

Card 3

1-2   3-8   9   10   11   12   13   14   15   16   17   18

19   20   21   22   23   24   25   26   27-29   30   31   32   33-36

37   38   39-41   42-44   45-47   48-50   51-52   53   54-55   56

Appendix D

Speech and Language Attitude Inventory

Speech and Language Attitude Inventory

INSTRUCTIONS

In day to day situations you will have many opportunities to observe other people's ability to articulate sounds and use language in general oral and written expression.

We would like for you to indicate the degree to which you agree or disagree with the following statements about general oral and written expression by placing an X on the appropriate line.

If you strongly disagree with a statement you should place your check-mark as follows:

Strongly Agree ____:____:____:____:_X_: Strongly Disagree

If you strongly agree with a statement you should place your check-mark as follows:

Strongly Agree _X_:____:____:____:____: Strongly Disagree

If you closely agree or disagree with a statement (but not extremely), you should place your check as follows:

Strongly Agree ____:_X_:____:____:____: Strongly Disagree

or

Strongly Agree ____:____:____:_X_:____: Strongly Disagree

If you consider the statement to be neutral on the scale, then you should place your check-mark in the middle space.

Strongly Agree ____:____:_X_:____:____: Strongly Disagree

Important: (1) Place your check-mark in the middle of the space, not on the boundaries:

This — Not This

____:____:_X_:____:____X:

(2) Be sure to check every scale for every statement -- do not omit any.

(3) Never put more than one check-mark on a single space.

Make each item a separate and independent judgment. Work at a fairly high speed through this test. Do not worry or puzzle over individual items. It is your first impression, the immediate "feelings" about the items that we want. On the other hand, please do not be careless, because we want your true impressions.

****

1. In small, friendly group conversations, it is not necessary to correct speech errors.
Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

2. The important thing is not so much that you use correct words all the time, but rather that you know the correct words to use.
Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

3. When a person goes for a job interview, it is important that he use his best speech.
Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

4. A person who speaks loudly is a good speaker.
Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

5. It is very embarrassing when a friend uses incorrect grammar in speech.
Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

6. It is perfectly all right to use slang expressions when speaking with friends.
Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

7. In some professions, correct speaking and writing are not so important.
Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

8. College students should be required to take speech courses.
Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

9. Family members and friends should try to correct each others' speech.
Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

10. College life should help a person improve his speaking habits.
Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

11. Errors in spelling are all right when one writes to friends and relatives.
Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

12. People should be corrected when they make errors in speaking and writing.
Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

13. It takes a great deal of work to improve speech and language habits.
Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

14. People with deficiencies in speech and language habits should seek help.

Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

15. It is very embarrassing when one's parents mispronounce words.

Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

16. More attention should be given to speech courses in high school.

Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

17. One should try to use the latest slang expressions in speaking and writing.

Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

18. The person who speaks and writes well has a better chance of getting ahead in the world.

Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

19. To speak well, one must use "big" words and have extensive vocabularies.

Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

20. It is absolutely necessary that educated people speak and write correctly.

Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

21. The way a person speaks is quite revealing of his personality.

Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

22. Without good speech one will never make the grade.

Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

23. Speech and language are very important social instruments.

Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

24. People form impressions of you, based in large measure, upon the way you speak.

Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

25. Poor speech is little more than sheer negligence and laziness.

Strongly Agree _____:_____:_____:_____:_____: Strongly Disagree

1. List five (5) of the most popular slang expressions which you and your friends use in everyday conversation.

    1. ____________________ 2. ____________________

    3. ____________________ 4. ____________________

    5. ____________________

2. List five (5) of the most common errors you think people make in speaking.

    1. ____________________ 2. ____________________

    3. ____________________ 4. ____________________

    5. ____________________

3. List five (5) of the most common errors you think people make in writing.

    1. ____________________ 2. ____________________

    3. ____________________ 4. ____________________

    5. ____________________

4. List the four (4) qualities which you think are most important in good speech.

    1. ____________________ 2. ____________________

    3. ____________________ 4. ____________________

5. List four (4) qualities which you think are most important for good written expression.

    1. ____________________ 2. ____________________

    3. ____________________ 4. ____________________

6. How would you judge your own speech? (please check appropriate box)

    ☐ Excellent ☐ Very good ☐ Fair ☐ Poor

    a. The speech of your close friends

    ☐ Excellent ☐ Very good ☐ Fair ☐ Poor

    b. The speech of your parents

    ☐ Excellent ☐ Very good ☐ Fair ☐ Poor

Appendix E

Formula for Grouping of Speakers

GROUPINGS FOR SPEAKERS ON THE BASIS OF RATINGS AND INTELLIGIBILITY SCORES*

HIGH	MODERATE	LOW
1-3	4-5	6-9

HIGH DETERMINANTS

- Two high ratings and better than 75% correct on Is.
- One high and one moderate rating plus 90% Is correct.

MODERATE DETERMINANTS

- Anything that cannot be placed in the other two categories.

LOW DETERMINANTS

- Two ratings of low. (See above)
- One rating of low and one moderate plus less than 80% Is correct.
- Two ratings of moderate and Is of less than 75% IS correct.
- One high rating and one which disagrees plus Is less than 60% correct.
- Two high ratings with less than 50% Is correct.

OUT OF 24	OUT OF 48	OUT OF 72
50% = 12	50% = 24	50% = 36
60% = 14	60% = 29	60% = 43
75% = 18	75% = 36	75% = 54
80% = 19	80% = 38	80% = 58
90% = 22	90% = 43	90% = 65

*For example, if a subject received ratings of 5 (moderate) and 6 (low) and IS scores of 19 and 17 from 2 raters, he would have one rating of moderate and one of low with less than 80% IS and placed in the low proficiency group.

Appendix F

Sub-study Comparing Sample and College Norms

Sub-study Comparing Sample and College Norms

In order to explore some of the differences in personality structure between the sample and the normative populations, comparisons were made for these groups on each variable of each instrument.

The need structure of the sample males (N=423) differed significantly from the normative males on 8 of the 15 variables measured by the EPPS. The male sample exhibited significantly higher needs for Deference, Order, Abasement, and Endurance and significantly lower needs for Exhibition, Autonomy, Affiliation, and Dominance than the normative group. The sample females (N=509) differed from their normative counterparts on 7 of the EPPS variables. The female sample manifested significantly higher needs for Achievement, Order, and Endurance when compared with the female normative group, and significantly lower needs for Exhibition, Affiliation, Dominance, and Change (Table 1A).

Using Negro college students from the South and much smaller samples, Brazziel (1964) obtained similar results with the EPPS. The majority of variables which differentiated the Negro from the white population were of a type which *involved the ascendance-submission pattern in human relationships*. This same pattern persisted in the present analysis of high and low proficiency speakers.

The GZTS profile of the sample males (N=428) was significantly different from the male college norms on 7 traits: General Activity, Restraint, Ascendance, Objectivity, Friendliness, Personal Relations, and Masculinity. All scores, with the exception of that for Ascendance, were lower for the sample males. These lower scores are indicative of negative qualities for the respective trait and suggest a lower level of adjustment. The sample females (N=516) differed significantly from the female college norms on 7 of 10 traits measured by the GZTS. The sample females scored lower than their normative counterpart on the measures of General Activity, Objectivity, Friendliness, Personal Relations, and Masculinity, and higher on Ascendance and Thoughtfulness (Table 1B). The EPPS and GZTS profiles reveal a unique syndrome of conflicting needs or traits - the sample poplations exhibits comparable or higher degrees of aggression and ascendance, while the needs to defer and to endure are high and to dominate and have autonomy lower.

On the CPI a total of 14 of the standard 18 variables significantly differentiated the sample males (N=434) and male college norms. The normative college males scored higher on each of the 14 differentiating variables. These findings indicate that in comparison with the normative males the sample college males, from a social interaction point of view, tend to function less adequately in the areas of ascendancy, socialization, maturity, responsibility, achievement potential, and intellectual efficiency. The total profile of the sample females (N=508) was significantly different from the female college norms. Significant differences were obtained on all 18 variables; on only 2, Self Acceptance and Femininity, did the sample population score higher than the normative population. The Negro college female seems to have a greater sense of personal worth, possess more self-confidence and assurance and have more feminine interests than than her normative counterpart, who is better able than she to achieve over-all social adequacy (Table 1C).

The sample population differed from the normative population on more than half of the 43 variables included in the test battery. The majority of these variables related to patterns of interpersonal relationships (EPPS and GZTS) and personality characteristics requisite for personal adequacy and social interaction (CPI). These findings support the notion that enforced segregation and negative stereotypes can suppress the dominant, independent tendencies of the Negro and hinder the adequate development of some of the essentials of personal adjustment and social functioning.

TABLE 1A

MEANS OF TOTAL MALES AND TOTAL FEMALES COMPARED
WITH MALE AND FEMALE COLLEGE NORMS FOR EPPS VARIABLES

	MEANS			
Variables	Males	Male College Norms	Females	Female College Norms
Achievement	15.70	15.66	14.26**	13.08
Deference	12.47**	11.21	12.68	12.40
Order	11.99**	10.23	11.68**	10.24
Exhibition	13.95	14.40*	13.27	14.28**
Autonomy	13.64	14.34**	12.14	12.29
Affiliation	13.60	15.00**	15.13	17.40**
Intraception	15.90	16.12	17.70	17.32
Succorance	11.23	10.72	12.54	12.53
Dominance	14.24	17.44**	11.97	14.18**
Abasement	13.20**	12.24	14.70	15.11
Nurturance	14.32	14.04	16.83	16.42
Change	15.15	15.51	16.57	17.20*
Endurance	14.31**	12.66	13.55**	12.63
Heterosexuality	17.92	17.65	14.94	14.36
Aggression	12.35	12.79	10.84	10.39
N	423	760	509	749

*Significant at the .05 level
**Significant at the .01 level

TABLE 18

MEANS OF TOTAL MALES AND TOTAL FEMALES COMPARED WITH MALE AND FEMALE COLLEGE NORMS FOR GZTS VARIABLES

	MEANS			
Variables	Males	Male College Norms	Females	Female College Norms
General Activity	15.53	17.0**	15.06	17.0**
Restraint	15.72	16.9**	16.23	15.8
Ascendance	16.67*	15.9	14.20**	13.7
Sociability	18.73	18.2	19.61	19.6
Emotional Stability	16.93	16.9	15.71	15.3
Objectivity	15.59	17.9**	15.37	15.0**
Friendliness	12.41	13.8**	14.26	15.7**
Thoughtfulness	18.20	18.4	19.34**	18.1
Personal Relations	13.58	16.7**	13.73	17.6**
Masculinity	17.70	19.9**	10.05	10.8**
N	628	523	516	389

*Significant at the .05 level

**Significant at the .01 level

TABLE 1C

MEANS OF TOTAL MALES AND TOTAL FEMALES COMPARED WITH MALE AND FEMALE COLLEGE NORMS FOR CPI VARIABLES

	MEANS			
Variables	Males	Male College Norms	Females	Female College Norms
Dominance	27.01	28.3**	26.81	28.5**
Capacity for Status	18.46	20.9**	18.00	22.2**
Sociability	25.42	25.4	24.37	26.0**
Social Presence	35.08	37.3**	32.94	37.0**
Self-Acceptance	21.98	22.3	21.74**	19.5
Well-being	33.30	36.6**	32.96	37.5**
Responsibility	28.54	30.8**	30.52	33.3**
Socialization	35.35	36.8**	37.26	39.5**
Self-control	26.40	27.6**	27.23	30.8**
Tolerance	18.81	23.3**	19.47	25.0**
Good Impression	17.14	17.2	16.77	19.1**
Communality	24.25	25.5**	25.16	25.5*
Achieve. Conforma.	25.85	27.4**	26.33	28.8**
Achieve. Independ.	17.12	20.9**	17.39	21.9**
Intellectual Efficiency	35.43	39.8**	35.24	41.4**
Psychological Mindedness	10.39	11.4**	9.91	11.4**
Flexibility	9.52	11.1**	9.40	11.6**
Femininity	16.82	16.7	23.48**	22.8
N	434	1133	508	2120

*Significant at the .05 level

**Significant at the .01 level

Appendix G

Group Counseling Sub-study Design

GROUP COUNSELING SUB-STUDY
(Design)

Many students from culturally deprived homes who have graduated from slum schools in the north or segregated schools in the south begin their university studies with a severe educational handicap. Although these students may be intelligent they are inadequately grounded in academic skills and ill-prepared to cope with demands for an independent and organized pursuit of knowledge. They suffer from low self-esteem and have had limited social and cultural experiences. Without appropriate counseling and remediation such students often fail to survive their first year in college.

The students at Howard University are no exception. Approximately 80% of the freshman class required remedial assistance in basic skills, and more than one third of them are placed on probation at the end of their first year. By the middle of the second year more than 30% have left school.

Although there is a remedial program at Howard University, it does not seem adequate to combat the extensiveness of the problem of academic failure, and although there are well organized student activities, poor students often do not avail themselves of these facilities.

A group counseling program was thereby developed to help these students to more effectively cope with their problems of academic and social functioning. The group counseling experience was seen as providing the students with an opportunity to more closely examine the specific problems they are facing; to help them to use their time more effectively; and to help them make more appropriate use of university facilities.

The counseling groups will be run by graduate students who are studying guidance and counseling. These students will run their groups under the supervision of the group counseling instructor, as the practicum of their course in group counseling techniques.

The curriculum of the graduate student's course calls for them to meet weekly to discuss techniques of counseling, methods of running groups and more specifically the problems and needs of university freshmen who are functioning poorly. Their course is also set up to give them the opportunity to discuss the particular kinds of issues that have arisen in their freshmen counseling groups.

In turn each graduate student will conduct a weekly counseling group consisting of 6-8 freshmen who have been classified as poor speakers and marginal students, for approximately half of the freshmen in the program are on academic probation.

Since to a large extent this counseling program is viewed as an experiment, one of its major goals is to study whether group counseling can assist in improving the academic and social functioning of university freshmen. The evaluation of this program therefore will address itself to answering this as well as other questions.

Research Goals

The three major research goals of this program are:

1. To evaluate whether group counseling can effect an improvement in the social and academic functioning of university freshmen who are marginal students, including their speech and oral language abilities.
2. To determine whether a relation exists between the level of the group's involvement in counseling and the effect of the program in improving the academic performance or speech and language proficiencies of its participants.
3. To determine whether and to what extent there is a relationship between the learning of group counseling techniques and the running of counseling groups.

Methodology of Evaluation

Goal I. To measure in the academic and social functioning of university freshmen who are marginal students.

Of 300 freshmen having difficulties with their studies and judged to be poor speakers, 140 were randomly selected for intensive follow-up. From this group, forty students were assigned (on the basis of their availability at a specified time) to participate in a weekly group counseling session. Sixty students were also assigned to speech classes, and 20 of them were, in addition, required to attend a speech clinic. This group, for the purposes of our design, will serve as the experimental group.

A similar group of 20 students received the same kind of assignments, with the exception that they were not required to attend group counseling sessions. This group of students, therefore, will serve as our control.

Both groups, the experimental and the control were given the following battery of psychological tests: The California Psychological Inventory; The Edwards Personal Preference Schedule; and the Guilford-Zimmerman Temperament Survey. They were also given two speech tests: one measuring speech adequacy; the other speech intelligibility.

These tests which will be administered on a before and after basis and will provide the measure of change, if any, of the social functioning of the students.

An indication of change, if any, in the students academic functioning will be provided by a before-after comparison of their grade point averages.

In both instances the score of students participating in counseling will be compared with scores of students in the control group and a test of significance of difference applied.

Goal II. To evaluate the relationship between the learning of group counseling techniques and the running of counseling groups.

The purposes of the Group Counseling Practicum is to provide the students with knowledge on group counseling techniques through group discussion as well as through the experience of the running of such a group. The content of the course will be geared to dealing with the kinds of situations and problems that they will confront in the group. In order to evaluate whether: (1) There has been learning of group counseling techniques; and (2) There is a relationship between what is discussed and at what level in the graduate student seminar and what is discussed and at what level in the counseling groups the following procedures will be followed.

1. A Pre and Post Test on Group Counselling Techniques
   It can be assumed that most of the graduate students in the practicum will bring to the experience some knowledge of group counselling techniques. Consequently a short test assessing their knowledge of counselling techniques and approaches will be given to the students early in the semester. A similar test will be given at the end of the course and the scores compared for possible changes.

2. An Analysis of Counselling Issues Discussed
   All of the sessions of all of the groups will be taped. A twenty minute time segment will be extracted from each tape and the issues discussed will be both summarized and analyzed in terms of the level of the group's involvement in the discussion. A six point scale will be used to rate the group's involvement. The points on the scale range from discussion of the issue in abstract terms to a verbal indication that behavior relating to the issue has been changed.

   The total time segment will also be scored on the extent of participation, the excitement generated, and on issue focused character of the discussion.

   The taped segments from the freshmen's counselling group will be compared with those from the graduate students sessions to see if there is any correspondence between the issues discussed, the level of involvement in the discussion, and the extent of group participation, excitement and issue focusing.

Goal III. To evaluate the relationship between group involvement in the counselling process and the participants' improvement in social and academic functioning.

The freshmen counselling groups will be ranked according to the scores received on the two scales previously mentioned. The groups will also be ranked according to cumulative totals of points gained by its members on the battery of psychologicals and speech tests administered at the end of the program, as well as on improved grade point averages. Rank difference will be correlated.

Scale for Evaluating Level of Involvement in Issues Raised

1. **Issue discussed abstractly**

   (someone else's problem; philosophically discussed; information giving requesting; seen as a general problem; seen as not related to self or to counselee; seen as tangential to self or counselee)

2. Is recognized as a difficulty (as a problem related to self or counselees; as a problem needing some attention; more discussion probing, clarification; indicated discomfort, incorrectness about present modes of operation; expressess empathy for counselees' difficulty)

3. Attempt to understand why it is a difficulty (shows a willingness to delve into causes-- what is being done incorrectly, why is it being done this way?)

4. Seeks solution (ways) to cope with youth's difficulty or with one's own difficulty (modes of behaving relating to solving the problem; seeks new coping skills, new ways of operating; seeks ways of helping counselee, i.e. study problems in dorm.

5. Understands ramifications of accepting (implementing) solutions (i.e., understands that it will call for changing accepted modes of behavior, sees difficulties in changing behavior (attitudes).

6. Indicates decision to act on solutions given (Verbally counselee indicates that he desires to change behavior, verbally indicates that behavior will be changed, has been changed; reports on behavior change or attempts at it).

Instruction for Using Scale

1. The issue under discussion first must be identified - identify issue as specifically as possible. For the purposes of our rating an issue is defined as an item of conversation around which two or more people (not including group leader talk).

2. After identifying issue you'll need to listen to the discussion on issue through to its end (i.e. until the discussion shifts to another issue - or time segment is completed).

3. For each issue you're to give one score which refers to the highest level of discussion achieved around the issue, even though discussion may end on a lower level. This score relates to the discussion of the participants only.

Rating Scale of Interest Level of Group Counseling Session

Extent of Participation

- Leader played a dominant role in discussion

0 Discussion monopolized by one of two people

+ Participation in discussion widespread

Excitement Level

- Low intensity to discussion (frequent pauses, silent periods)

0 Even keel to discussion (steady flow of discussion)

+ Fevered intensity to discussion (excitement, frequent interruption, desire to be heard)

Issue Focused

- Frequent shifting from one issue to another (without completing discussion of the issue; no sustained discussion around issues)

0 Confounding of issues (no clarity around issue under discussion)

+ Discussion focused on issues

Appendix B

Form for Evaluation of Speeches

Speech Analysis Form

Speaker ______________________________

Topic ______________________________

Critic ______________________________

Instructions:

Listed below are items which you will use to evaluate the speeches of your classmates. Fill in the blank beside each item with the number (1-5) which you feel the student deserves.

Ratings

5-Excellent
4-Very Good
3-Good
2-Fair
1-Poor

Bearing	_______________	A. Directness (visual and mental)
	_______________	B. Poise
	_______________	C. Animation
	_______________	D. Warmth
	_______________	E. Tact
Content	_______________	A. Logical thinking
	_______________	B. Originality of ideas
	_______________	C. Documentation
	_______________	D. Definiteness of purpose
	_______________	E. Supporting materials
	_______________	F. Interest value
Organization	_______________	A. Approach
	_______________	B. Partition
	_______________	C. Order and arrangement
	_______________	D. Transitionals
	_______________	E. Proper Scope of Topic
	_______________	F. Recapitulation
	_______________	G. Appeal

Presentation

______________ A. Audibility
______________ B. Spontaneity
______________ C. Rate
______________ D. Diction
______________ E. Method of Presentation
______________ F. Breathing
______________ G. Pronunciation
______________ H. Voice Quality

COMMENTS:

BIBLIOGRAPHY

Bibliography

Anisfeld, M., "Evaluational Reactions to Accented-English Speech." *Research Bulletin on Intergroup Relations*, 1, 3 (1962).

Backus, O., "Group Structure in Speech Therapy," Chapter 33 in *Handbook of Speech Pathology*, Ed. by Lee Travis, Appleton-Century-Crofts, Inc., New York (1957).

Barbara, Dominick A., et. al., *Psychological and Psychiatric Aspects of Hearing*, Springfield, Illinois: Charles C. Thomas (1960).

Batten, J., as quoted by Bettelheim, Bruno in "Sputnik and Segregation," *Commentary*, (October, 1958).

Beckey, R. E., "A Study of Certain Factors Related to Retardation of Speech," *Journal of Speech and Hearing Disorders*, Vol. 17, pp. 273-279 (1942).

Bidwell, C., "Language, Dialect, and Nationality in Yugoslavia," *Human Relations*, 15, 3.

Black, John W., "Multiple-Choice Intelligibility Tests," *Journal of Speech and Hearing Disorders*, Vol. 22 (June, 1957).

Bramfield, T., *Minority Problems in Public Schools*, New York: Harper & Bros. (1946).

Brazziel, W. F., "Correlates of Southern Negro Personality," *Journal Soc. Issues*, 20, 46-53 (1964).

Bryngelson, B., "Personality Changes," *Quarterly Journal of Speech*, Vol. 14 (1928).

Burgi, E. J. and Mathews, J., "Effects of Listener Sophistication Upon Global Ratings of Speech Behavior," *Journal of Speech and Hearing Research*, 3, 348-353 (1960).

Clark, Ruth M., "Maturation and Speech Development," Chapter 11 in *Psychological and Psychiatric Aspects of Speech and Hearing*, Edited by Dominick A. Barbara, Springfield, Illinois, Charles C. Thomas (1960).

Davis, I. P., "The Speech Aspects of Reading Readiness," *National Elementary Education*, Vol. 17, pp. 282-289 (1938).

Dexter, E., *A Study of the Speech Development of Primary Grade Children in Relation to Certain Perceptual, Intellectual, and Sociological Factors*, Doctoral Dissertation, University of Michigan (1961).

3-7

Fairbanks, Grant, "Systematic Research in Experimental Phonetics," Journal of Speech and Hearing Disorders, Vol. 19 (1954).

Golden, Ruth I., Improving Patterns of Language Usage, Detroit: Wayne State University Press (1960).

Green, E., "Yiddish and English in Detroit: A Survey and Analysis of Reciprocal Influences in Bilinguals' Pronunciation, Grammar, and Vocabulary," Doctoral Dissertation, University of Michigan (1962).

Hibler, M. A., "A Comparative Study of Speech Patterns of Selected Negro and White Kindergarten Children," Doctoral Dissertation, University of Southern California (1960).

Hollien, Harry and Ellen Malcik, "Adolescent Voice Change in Southern Negro Males," Speech Monographs, Vol. 26. 1 (1962).

Hurst Jr., Charles G. and Lewis H. Fenderson, Effective Expression, Columbus, Ohio: Charles E. Merrill Books, Inc. (1965).

Irwin, John V., "Psychological Implications of Voice and Articulation Disturbances," Chapter XIV in Psychological and Psychiatric Aspects of Speech and Hearing, Edited by Dominick Barbara, Springfield, Illinois: Charles C. Thomas (1960).

Jordan, E. P., "Articulation Test Measures and Listener Ratings of Articulation Defectiveness," Journal of Speech and Hearing Research, 3, 303-319 (1960).

McCarthy, Dorothea, "The Language Development of the Pre-School Child," Child Welfare Monograph,(1930) No. 4.

McCarthy, Dorothea, "Language Development in Children." In L. Carmichael (Ed.), Manual of Child Psychology. (2nd ed.) New York: John Wilery, pp. 492-630 (1954).

McClure, H. S., "A Study of the Existing Relationships Between Articulatory Defects and Related Disabilities Including Reading," Ball State Teachers College, Unpublished Master's Thesis (1952).

Mico, P., "A Task for Amerindian School Health Education," Journal of School Health, Vol. 36 (1962).

Mid-Century White House Conference, "Speech Disorders and Speech Correction," Journal of Speech and Hearing Disorders (1954).

Minifie, F. D. and Cooker, H. S., "A Disfluency Index," Journal of Speech and Hearing Disorders, 29, 188-192 (1964).

Morrison, Sheila, "Measuring the Severity of Articulation Defectiveness," Journal of Speech and Hearing Disorders, 20, 347-351 (1955).

Powers, Margaret H., "Speech Correction in the Chicago Public Schools," Special Education in the Chicago Public Schools, Chicago: Chicago Board of Education (1953).

Prather, Elizabeth M., "Scaling Defectiveness of Articulation by Direct Magnitude-Estimation," Journal of Speech and Hearing Research, 3, 380-392 (1955).

Schreiber, Flora Rheta, "The Psychological Factors Affecting the Development of Speech in the Early Years," Psychological and Psychiatric Aspects of Speech and Hearing," Springfield, Illinois: Charles C. Thomas (1960).

Shaffer, Laurence F. and Shoben, E.J. Jr., The Psychology of Adjustment, Second Edition, New York: Houghten, Mifflin Company (1956).

Sherman, Dorothy and Morrison, Sheila, "Reliability of Individual Ratings of Severity of Defectiveness," Journal of Speech and Hearing Disorders, 20, 352-358 (1955).

Solomon, D., "Ethnic and Class Differences Among Hospitals as Contingencies in Medical Careers," American Journal of Sociology, Vol. 66 (1961).

Stitt, C. L. and Huntington, Dorothy A., "Reliability of Judgments of Articulatory Proficiency," Journal of Speech and Hearing Research, 6, 49-56 (1963).

Stroud, R., "A Study of the Relations Between Social Distance and Speech Differences of White and Negro High School Students of Dayton, Ohio," Master's Thesis, Bowling Green State University (1956).

Templin, Mildred C., "Certain Language Skills in Children: Their Development and Interrelationships," Child Welfare Monograph, No. 26 (1957).

Van Riper, Charles, Speech Correction: Principles and Methods, Englewood Cliffs, New Jersey: Prentice-Hall, Inc. (1961).

Walcott, Fred G., "Writing by Ear," Education, 80, 189 (1959).

White House Conferences on Child Health and Protection, New York: Century (1951)

Wood, K. S., "Parental Maladjustment and Functional Articulatory Defects in Children," Journal of Speech Disorders, 11, 255-275 (1946).